



# ATARI COMPUTER ENTHUSIASTS (N.S.W.)

A.C.E. (N.S.W.)  
G.P.O. BOX 4514,  
SYDNEY. 2001.  
N.S.W. AUSTRALIA.

INSIDE INFO

No. 27

October

1986



THE  
NEW  
ATARI'S  
TYPO CHECKER  
AND MUCH MUCH MORE...  
**PRICE \$3.00**



# SUPER(B) PRODUCTS



NEW PRODUCT RANGE NOW COMPLETED AND AVAILABLE FROM STOCK

**SUPERMON** is still the popular one. Replaces the operating system with the rev "B", no more translator disks for XL owners. Gives a full and super powerful disassembler ALWAYS resident. Includes a 4 colour screendump which will even do some redefined character set graphics or any mixture of modes (Unique!!!) Has loads of built in features such as binary loader (without DOS) etc. etc. The graphics dump can be customised for almost any non-Epson printer, in which case we require a list of printer commands and \$20.- extra.

**SUPERRAM** gives you a BIG computer. 256K of RAM for your XL (both 600 and 800), 304K in your 800 and a whopping 320K for your XE. SuperDOS allows you to use this extra memory from almost any program, while your Supermon can access it with any of its functions. 600XL and 800XL no soldering required, on the 800 only 1 connection.

**SUPERMAX** gives you TRUE double density on your 1050, as well as a fourfold increase in the read/write speed (with Superdos). Menu driven for convenience, with a multitude of extra functions and even an auxilliary file with e.g. Superbin, the super high speed binary loader which leaves you 707 sectors for programs. Please note that SuperDOS no longer comes free with the other products, as it is now widely available from user groups etc. If you can't get hold of version 2.A, include an extra \$5.- with your order.

**SUPER800** will allow your faithful 800 to run all those special XL programs without having to buy an XL. If used with Superram, can also emulate the XE, running such programs as Paper Clip, Atari writer plus etc. Contains TWO operating systems, both with Supermon and 16K of RAM. Can be configured for Superface. Gives you 3 computers in one. Can drive Superram as Axlon or XL compatible!!

**SUPERLED** will give you a reliable indication of what your 1050 is doing, indicating density, read/write and write protect status, with a 3 way switch to give normal, ALWAYS protected (green LED) and NEVER protected (red) status. Perfect companion for Supermax.

**SUPERFACE** Allows your computer to drive the printer through the joystick port. NOT a software driven ring-in, but will work with ANY program, including graphics programs such as Print shop etc. Will work almost any Centronics printer. It needs Printmon (Supermon) to be present, but look at the price!! Compared to a standard interface you get Supermon AND Superface for even less!! Superproducts may not be flash, but we give you a quality, reliable product at an affordable price. We brought you the first Supermon in 1983 for the same \$89.- that we now ask for a vastly improved version. And we don't blather about the dropping dollar either!! And our backup service is unparalleled, ask the few Super Product owners who had a problem or query!!

SUPERMON 400/800/600XL/800XL \$89.-      SUPERMON for XE \$59.-  
SUPERMAX \$89.-    SUPERLED \$30.-    SUPERFACE \$49.-    SUPER800 \$159.-  
SUPERRAM 800 \$159.-    800XL \$75.-    600XL \$120.-    XE \$159.-

SUPER PRODUCTS. P.O BOX 507 BEENLEIGH QLD. 4207 PH(07) 8011218

# EDITORIAL



I thought the title page would get you to read the editorial, tricky eh. Anyway Atari has announced two more STs the 2080 and the 4160 with 2 meg and 4 meg respectively. Whether these turn out like famed 1450 XLD only time will tell.

While I have your attention there are a few important messages:

## MEMBERSHIP

Due to the increase in printing cost, postage etc, the committee has decided that;

1. The joining fee is to be abolished.
2. The annual subscription rate is to rise from \$15.00 p.a. to \$20.00 p.a.
3. Back issues of INSIDE INFO will increase from \$3.00 per issue to \$4.00 per issue.
4. These changes will commence from the 1st January 1987.

So if you are quick you can renew your membership at the old price of \$15.00.

## THE WINNERS

Every three issues of INSIDE INFO the committee votes on the best article/program received. Well we voted and the winners were.

1st. KEN HALL for AMERICAS CUP issue 24. Ken wins \$50.00

The two runner ups receive 4 disks of their choice from the software exchange. They were;

GLYNN GOUGH for VBI'S and DLI'S tutorial issue 24.

BRUCE FAIRHALL for TAXFILE issue 25

Thanks for all those other people who have submitted articles. Remember every time an article/program is received and is published you are entitled to one disk free of charge from the software exchange and are in the running for one of the three prizes.

## AGM and CHRISTMAS PARTY

Don't forget that the AGM is on November 10. All positions are declared vacant so if you wish to stand for one of the positions don't forget to come along. The Christmas party will be held on December the 8th, there will be food, drink and a good time to be had by all so come along.

That is it see you next meeting or next mag.

Craig Armsworth



## MEETBEAT



by Ian Murray  
September Meeting

The September meeting turned out to be very successful, despite



the non-appearance of some of the expected exhibits. It is good to see though, that there is enough interest in the club, by its members, that there were sufficient additional items to be displayed.

The meeting began with the 'News And Bits' section, with a couple of items, which will be of interest to all members. Firstly, the news that the South Australian Education Department have chosen the Atari 1040 ST as the computer to be used in South Australian Primary Schools. It was chosen ahead of both the Mackintosh and Amiga. Secondly was the announcement of a new Computer Magazine called GEM which sees its first issue to be issued in September. The first issue features the Atari ST range of computers.

Bob Vickery gave the meeting a very informative lecture and display of Forth. It is good to see that Forth is not a dead language. Greg See-Kee provided the highlight of the meeting, in the eyes of the ST owners at least, by displaying the Oki-mate 20 colour printer. Greg supplied some very spectacular colour prints on both paper and overhead transparencies. Philip Hayne completed the ST highlights by showing Winter Games. This highly successful version of the older 8-bit Summer Games. As we have come to expect from our talented editor, much mirth was caused by his attempts at the aerial stunts. Thanks for the laughs Craig. (its all part of the job. Ed.)

The evening was not, however, totally dedicated to the ST. The Computereyes Video Digitizer proved very popular with all in attendance. Results were very encouraging despite the lack of suitable lighting. It is hoped that a disk of digitised photographs will soon be available through the software exchange. I also hope to be able to arrange to show the Maplin and Hippo digitizers at a future meeting. Jerry Lawrence supplied an interesting look at Alternate Reality for the meeting. This adventure game has some good graphics and sound, and looks well worth having a look at.

I look forward to seeing as many of you as possible at forthcoming meetings. By the way if you have anything that you would like to demonstrate at a club meeting, please contact me, so that we can arrange a time to do so.



## **THEN TRY THIS**

Some handy TAPE & DISK hints by Lance Munday

Do you have a cassette tape that your not sure where the program starts? THEN TRY THIS!!!

POKE 54018,52

This will turn the cassette motor on and you can listen for the sound of the program and note the tape counter when you hear it.

Would you like a simple utility to verify that a tape file is

recorded properly? THEN TRY THIS!!!

```
CLOSE #1:OPEN #1,4,0,"C:":FOR Z=1 TO 400:GET #1,Z:NEXT Z
```

After you've CSAVE or LIST or PRINT to the tape, rewind and press play. Enter utility and it will read the file, if all is well it will give an ERROR 136 END OF FILE message, if it doesn't then save the file again.

### Some handy DISK hints

Have you ever had trouble with two programs with the same name on the same disk? THEN TRY THIS!!!

```
POKE 3111,76:POKE 3112,234:POKE 3113,18 [RETURN]
```

```
D O S [RETURN]
```

```
E [RETURN] (to rename a program)
```

Now only the first program will be renamed. Turn computer off and then on again and all will be as normal

Would you like to easily disable the BREAK key? THEN TRY THIS!!!

Use these two POKES in your program

```
POKE 566,143:POKE 567,231
```

Unfortunately this only works with the OS B ROMs

Have you ever wanted to load a binary file while in BASIC. THEN TRY THIS!!!

```
OPEN #1,4,0,"D:PROGRAM.OBJ"
```

```
X=USR(5576)
```

Although this is an illegal jump into the operating system I'm sure you wont mind.

Would you like the ability to get a disk directory from basic? THEN TRY THIS!!!

```
D O S [RETURN]
```

```
C [RETURN] (copy a file)
```

```
E:,D:DIR [RETURN]
```

```
CLR:T.40000:CL.#1:D.#1,6,0,"D:*. *":DIMA$(30):F.Z=1T064:I.#1;A$:?A$:N.
```

```
Z:CLR:CL.#1:END [RETURN]
```

```
[CTRL] 3
```

When in BASIC type in ENTER "D:DIR" and the directory will be displayed.



# ACE TYPO CHECKER

by Craig Armsworth

Finally here it is the ACE TYPO CHECKER, for all of you that complained because you couldn't tupe... err type properly. The Typo



Checker is virtually the same as Typo II from Antic but with a few modifications.

Due to the limited space in the magazine the typo codes could not be printed next to each line and I felt it unsatisfactory to have them printed at the end of the program with the line numbers, so I had to develop a program that reads in the listing and then puts the code in the front of each line in inverse characters so you don't type them in. As Larry says REMs are to be avoided like the plague, ACE TYPO CHECKER does not give typo codes for REM statements, which also saves on space, who wants to know if you typed in a REM statement correctly? Also ACE TYPO CHECKER will save the program to disk or tape.

### HOW TO USE THE ACE TYPO CHECKER

Type in the ACE TYPO CHECKER then save a copy to disk or tape. It would be better if it was listed to disk or tape as programs, like forklift in this issue, there is line that must be typed in first. Type those lines in then [ENTER] TYPO CHECKER into memory and then type [GOTO 32000]

The screen will ask you to type in a program line. Abbreviations may be used. Press [RETURN] and TYPO CHECKER will give you a two letter code. If this code is not the same as the one at the beginning of the program line in the listing press [RETURN] and edit the line.

To look at any line previously typed type [SHIFT-MINUS] ( \_ ) then the line number and press [RETURN]. eg. \_10 [RETURN] will list line 10.

To delete a line just type the line number and press [RETURN].

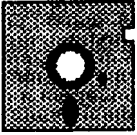
To save your work type [SHIFT-EIGHT] (@) and then D:FILENAME.EXT or C: and your work will be listed to disk or tape without Typo Checker. eg. @D1:PROGRAM.LST will list the program to drive one under PROGRAM.LST. Type [NEW] [RETURN] and [ENTER] the program back in memory and save back to disk/tape. This gets rid of the variables that TYPO CHECKER uses.

### REMEMBER DO NOT TYPE IN THE TYPO CODES

```

32000 REM ##### #1;LINE$:IF LINE$="" THEN POSITION 2,4 LINE ";B;" ELIMINATED":GOTO 32160
32001 REM # A.C.E. (N.S.W.) # :LIST B:GOTO 32060 QT 32150 GOTO 32170
32002 REM # TYPO CHECKER # QD 32070 IF LINE$(1,1)="_" THEN B=VAL( QD 32160 FOR X=1 TO 255 STEP 4: SOUND 0
32003 REM # by Craig Armsworth # LINE$(2,LEN(LINE$)):POSITION 2,4:LIST ,X,8,10:NEXT X: SOUND 0,0,0,0:GOTO 3205
32004 REM # Published Atari Computer# B:GOTO 32060 0
32005 REM # Enthusiasts (N.S.W.) # QN 32075 IF LINE$(1,1)="e" THEN LINE$= QU 32170 A$=STR$(B):IF LINE$(LEN(A$)+2
32006 REM # October 1986 # LINE$(2,LEN(LINE$)):LIST LINE$,1,31999 ,LEN(A$)+4)="REM" THEN 32050
32007 REM ##### :GOTO 32050 QU 32190 FOR D=1 TO LEN(LINE$):C=C+1:A
QL 32010 CLR :DIM LINE$(120),A$(6):CLO QN 32080 POSITION 2,10:PRINT "CONT" M5=AN5+(C*ASC(LINE$(D,D))):NEXT D
5E #1:CLOSE #2:OPEN #1,4,0,"E":OPEN # QF 32090 B=VAL(LINE$):POSITION 1,3:? " QK 32200 CODE=INT(AN5/676):CODE=AN5-(C
2,5,0,"E:" "; ODE*676)
QL 32020 DL=PEEK(560)+PEEK(561)*256 QC 32100 POKE 842,13:STOP QA 32210 HCODE=INT(CODE/26):LCODE=CODE
QU 32030 POKE DL+6,0:POKE DL+24,0:POKE QN 32110 POKE 842,12 -(HCODE*26)+65+128
DL+26,0:POKE 710,144 QF 32120 PRINT CHR$(125);" A.C.E. ( QH 32220 HCODE=HCODE+65+128:POSITION 4
RB 32040 PRINT CHR$(125);" N.S.W.) TYPO CHECKER":POSITION 2,14:LI ,18:PRINT "CODE = ";CHR$(HCODE);CHR$(L
N.S.W.) TYPO CHECKER" ST B CODE)
XX 32050 TRAP 32040:POSITION 2,3:PRINT QE 32130 C=0:AN5=C QN 32230 POSITION 2,19:PRINT "If CODE
"Please type the program line." QB 32140 POSITION 2,15:INPUT #2;LINE$: does not match press [RETURN] and edit
NL 32060 POSITION 1,4:PRINT " ":INPUT IF LINE$="" THEN POSITION 2,18:PRINT " line above.":GOTO 32050

```



# SOFTWARE EXCHANGE

By Philip Hayne

Greetings, this month we have four new disks, bringing the total number of disks in the SOFTWARE EXCHANGE to FORTY!

Unless otherwise noted all disks cost \$6.00 including P/P. A new batch of blank disks have been purchased from NASUA and will be sold at \$22.00 per 10 disks with \$3.00 P/P if applicable. O.K. here are the new titles:

## M.A.C.E. Fractals

This disk contains a set of programs to generate multicolored fractal images in GR 7+ and saves them to disk for a slide show (included). The flip side of the disk contains a new Slide Fader program to display the 18 included finished fractal pictures.

## A.C.E. 'C'

This is the second of our Language disks (the other is FORTH) and is a 8-Bit version of the popular language of 'C'. It has been enhanced with full library routines for Graphics & PM and sound etc. It is similar to ACTION! in many ways but it's transportability is one of it's main features. 'C' is the most common language on the ST computers and now the 8-Biters can ride the wave of it's popularity. Requires a Text Editor or Wordprocessor to enter in your source code.

## INSIDE INFO Vol 9

This disk covers all the programs from I.I. issues #25-#26. Programs include a, Payroll System, TAX filer, a LOGO screen dumper, a Times Table Teacher, a Parachute game, several very good GR demos, and 10 Statistical programs, and a disk menu to tie the lot together.

## SUPER DOS V4.2 (\$4.00 includes doco)

This is the latest SUPERDOS from Super Products, Qld. It is a very extensive DOS with that works in single, enhanced & double density, ramdisk support with auto load of files to ram, very memory efficient, can handle lower case and inverse filenames, color-coded screen boarder for read/write, verify toggle. Also included a Xtended DUP with functions to restore files, file tracer, XL/XE key repeat rate, DOS 3 converter, and SUPERBIN and SBAS to make binary and basic boot menu disks.

SUPER DOS is made available to us by Will Visser and Paul Nicholls and is distributed free, excluding media and photocopying costs

Well that's it for this month have fun and see you next issue.



# program review... st

DBCALC

from ROBTEK distributed in OZ by "BIT SHOP" P.O. BOX 28 Earlwood 2206  
phone 579-1549

This is an interesting program, from the point of being a data base and a versatile analytical program for the Atari ST computers. The use of drop down menus and processing speed make it quite a remarkable program, getting the best of many worlds. The market range that it is seemingly aiming at is both the home and small buisness application.

The term "Data-base" is to some a bit abstract, so I will explain. A data base is like an empty warehouse where much information can be stored, and later retrieved. In this warehouse we can store all types of files, folders, filing cabinets full with draws and files. It is up to the user to fill the vast amount of stroage with the necessary information and data. Then, with a smart program, one can access the files and extract necessary information, giving the user the bottom line, useful statistics, positive recall and help. If the data base is smart, a simple macro can pluck out relevant statistics and do relatively complicated analysis and forecasting.

So what use is a data base to me at home? Well, I have an income, expenses and it is nice to have a predictive programme that will tell me to pull my horns in and save some money. All my disk files and library can be entered for fast re-call. It can also be of use in determining the fuel economy of the family car, and giving an indication that something is about to go wrong with it. The kitchen and housekeeping can all be recorded and make the shopping a breeze. Plus those wonderful recipies and gourmet delights which tickle the taste buds :- a delicious application. Suppose one has a business, selling something like software and the government suddenly applied a 20% Sale Tax, the data base can re-configure all the prices, showing such info as break-or-bust, new prices, taxation, and print out fantastic reports.

There are many data base programs in the market place and range in price from \$30 to over \$600, but when you want to break down a formula, carry out totalizations, or simple analysis, you are stuck like a rat in a trap, if it is a simple data base. DBCALC is in the middle price range and offers functions which some of the more expensive programs give, which makes it a more viable aquisition in the home or small buisness environment.

DBCALC has a few down-fallings which I find a bit tedious. Firstly, the disk boots up in low resolution on the ST. So, when the program is to be run, it must be in medium resolution or better. This just means the desk top should be saved, but DBCALC is heavily protected so one must be hesitant about saving anything at all to that disk. In the instructions you are told repeatedly NOT TO WRITE to the master disk.

Protection: DBCALC uses a form of protection which will allow all but the master program to be copied. Even if you do copy it sector by sector or attempt to copy the entire disk, attempts to run that program will fail with an obvious error message telling one



about the copyright laws, (I like it). The work files are unprotected and should be copied to a work disk until one really knows how to drive DBCALC.

I would prefer a means of having back-up facilities, especially when the programme costs around \$150 Australian !!! Such prices have been shown to encourage pirates since users don't want to be continually using their "only" master disk, just to boot in the program. More manufacturers should begin to realize that their reputation is based on the service they supply to the user, not necessarily the programs sold. Users would jump at offers like, a special \$5.00 backup work disk to registered owners so that if something went wrong, the user won't be caught in a lurch, and then for each disk after that, \$20 with or without evidence that the work disk or master was destroyed. No matter what one claims, magnetic media is not perfect, and the master can be destroyed by water, food, dust, the disk drive, the operator, grease, magnetics, sunlight, heat, smoke, electrostatics and a multitude of other misfortunes. It is a lot of money to be tied up in a volatile substance. The importers of DBCALC are considering work copies, so that may be a light at the end of the tunnel.

I do not support piracy, but I would like to see more manufacturers of software change their approach to their method of raising revenue, and give the user value for money and a good long term service.

Such protection will be broken in time by dedicated pirates. Industries thrive on it happily. My argument is that the manual itself is what one really pays for, not the program. Software houses must consider the buyer and the purchasing inertia caused by the recently imposed Federal price rise. Software houses need to write programs with levels of difficulty which really requires the manual; Example ERROR CODE 16-->see page 22. Without the manual a pirate could not fly the program fully. More revenue could be made by the software house selling the manual without the program, and perhaps selling the source code listing in many instances. It is all great marketing. It also means that the software can be cheap, less sales tax, less buyer resistance, more sales, better profits. Manuals can be made photocopy proof today.

DBCALC requires the manual, at first, but once one learns to fly it, the manual is of little use. This is purely because the 24 page manual is written in clear uncomplicated English and is brilliantly concise, easy to use, and easy to master.

A minor gripe is the registration form for the guarantee. It is the last page of the manual, and I totally detest the idea of cutting out this form (or for that matter any form or any part of a reference book) as it will weaken the manual in time and detract from its usefulness. Surely a simple return mail card would have been better. In this country, Warranty is granted by proof of purchase, so there is no need to destroy the manual.

Unlike the more expensive professional data-bases where the disk is accessed for each file and altered accordingly, DBCALC pulls in the entire file and maintains it in memory. This is my third gripe. This is like the batch run data entry system in the early data



bases, where all that day's entries are updated after the users go home. These store the work file is in memory. Hours of input can be lost with one simple mistake or malfunction. So one must be forever making back-ups to ensure the integrity of the data-base. Personally, I prefer the virtual on-line data base where the files are updated immediately the return key is pressed and one can use the available memory for other wonderful real-time activities. But on-line data bases are slow in sorting and seem to take forever in doing a sort.

DATA SORTS are a fundamental pre-requisite of a good data-base. Simply, there are two basic types of sort, such as the telephone book (alphabetical left to right) or like the lottery results (lowest to highest). What-ever the method used, the sort must be accurate and fast. The sort in DBCALC is so fast and unbelievable to behold, I thought that there could have been a bit of trickery to it, such as using page flipping, so I checked out all of the disk files and could only concur that the program does a lightning speed bubble sort.

Sorting is by character, left to right unless you tell the computer that the field being sorted is a field of numbers or values. Suppose I needed to sort out a table of values from lowest to highest. If I just called on a sort and not on values, this is what would happen.

Consider these numbers:

-9, -1000, -12, -60, 12, 9, -11, 1000, -1

the sort would appear as:

-9, -60, -1, -1000, -11, -12, 1000, 12, 9

This is not lowest to highest, rather left to right, an alphabet sort of a numeric field. If the sort routine is told to sort by values, well that is a different story, resulting in:-

-1000, -60, -12, -11, -9, -1, 9, 12, 1000

SELECTIVITY. This is being able to narrow down a sort to one file, by looking for various criterion. A direct approach could be to specify just one name or part number, and have that exclusive record pulled onto the screen. When you have a few hundred entries, this becomes difficult, as one must remember exactly the format and typing case (UPPER and lower) of the original entry. Far better is to select several rough criterion through what many call "wild cards". I like the use of "WILDCARDS" especially when one can't remember the correct spelling or the address. Only the better data bases use wild cards, so all those entries starting with a certain initials, or group of letters or numbers can be extracted. Say for instance you were not sure of the spelling, but the lady concerned lives at N0 10 Downing Street, or close to that spelling, and the name could be Fatcher or Phacher or Thatcher or ..... One can search for all addresses with the number 10, and use elimination to find the right one. Better still is the ability to define first and last letters in one field and selectively narrow the view by other fields, age greater than 50, Address #10. DBCALC has both forms of wild card selective operation through FOUR separate wild card selections to narrow down the selection to one of a few, or one of one.

But the best is yet to come. I bet you have received at one time a computer form letter in the mail from readers disgust or similar. Want to do it to you friends? You must have seen the type of letter;

"JACK SMITH of No 10 HURLSTONE ROAD has been selected by the computer, and as you realize JACK, both you and your wife BETTY are eligible for the grand prize. Won't this be great at No.10 Hu.... Just buy a swimming pool from us and all the residents of HURLSTONE ROAD will ..."

Yes it does this tooooo, by merging a data file to a standard text file, so all the relatives can get the same personal letter or cheque at christmas time. Same old stuff, but each one uniquely addressed and personalized.

Calculations and analysis can be completed by creating models, just like programming in basic, creating what is a MACRO. It is absolute simplicity to define a field and then extrapolate with both straight forward mathematics to fairly complex trig functions, such as sin,cos, a-tan; and even if you that inclined, hyperbolic functions, and even PI.

Such models can be used for all manner of things from Spread-sheets (like Compute!'s speed-calc) to small buisness functions and even running the family car, determining fuel consumption/economy over the last 12 months and then predict what you will need to budget for in the next 12 months. etc.

Perhaps missing is a graph-it function, where the net results can be displayed in a graphics window, with X , Y and Z co-ordinates. Not to worry, DBCALC work files are pure text, and so it is possible to carry out the analysis in DBCALC, save the results, and then call up a seperate graph and pie chart program to do all the pretty things, to see at a glance the bottom line and the shape of things to come.

Depending on the application you have and the level of mathematical accuracy required, DBCALC could be a viable contender and should be looked at as a moderately priced data base at around a price of \$149.95. It is well written and has the ability to handle some very cumbersome applications which it does well. It is not as good as "VIP professional", but that is the top of the range. Immediate competition is Zoomracks, H&D Base, DB Man, and VIP Lite.

In my test drive of the program, I attempted many "user-silly-mistakes" and it stayed up. Top marks there.

#### The bottom lines:

Out of 10, I would put it in the range from 8.0 to 9.0, where I deducted points for the initial boot up procedures; the batch updating; the lack of graphical representations; and the warranty registration card. I gave marks for the Sort routine; the Selectivity; The easy of mastering; the drop down menu organization, the protection.

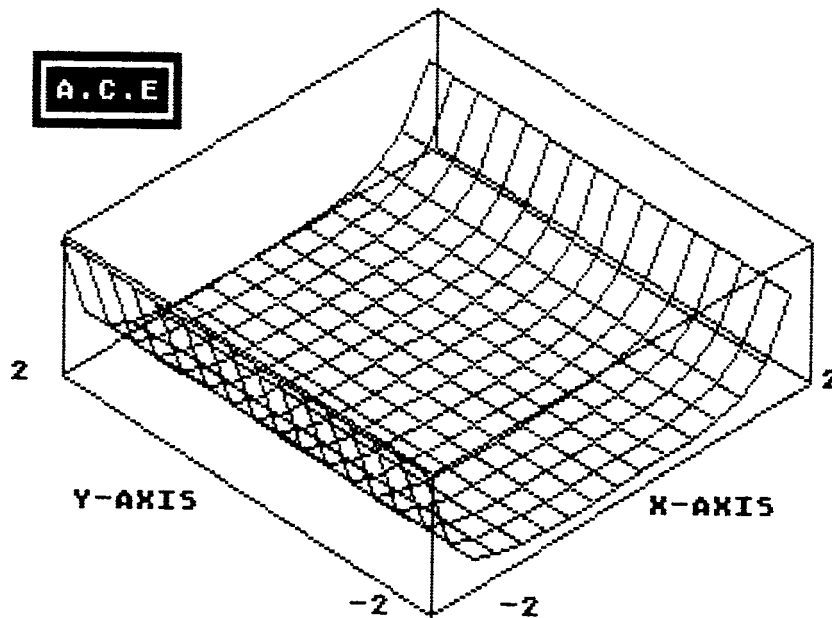
Apart from that it serves my applications better than expected. I believe it is worth it for my intended uses, (astronomy, home



finances, the car!).

Still, at the \$150 mark, I would have expected a large robust manual, with the present 24 pages being chapter 1 "HOW TO FLY DBCALC QUICKLY", a user's reference.

Larry O'Keeffe  
Vice President  
and Sysop



by Stan Ockers

Reprinted from Eugene ACE Educational Disk #10

Forklift is an educational game by Stan Ockers that will be one of the many programs appearing on our own educational disks to be released soon.

The object of the game is move words from the left of the screen to the right using a forklift. The problem is that the words must rhyme and be the only ones left on the right hand side pallet. Move the joystick up and down to change the forklift's height and left or right to move under a word. Push up to pick up, or down to drop. Keep doing this until all the words that rhyme are on the right.

```

ND 10 DIM PM$(1):REM *** ENTER THIS LI
NE FIRST ***
11 REM #####
12 REM # FORKLIFT #
13 REM # by Stan Ockers #
14 REM # Published by Atari Computer#
15 REM # Enthusiasts (N.S.W.) #
16 REM # OCTOBER 1986 #
17 REM # Reprinted from Eugene ACE #
18 REM # Educational Disk #10 #
19 REM #####
DX 100 GRAPHICS 18:POSITION 7,5:? #6;"
FoRkLiFt":POSITION 5,8:? #6;"INITIALIZ
ING":POSITION 3,10
ZF 110 ? #6;"takes 23 seconds":GOSUB 4
000:POKE 559,0:GOSUB 3000
198 REM
199 REM *** STARTING POSITIONS ***
KC 200 GOSUB 2000:TOPL=C4:YL=TOPL*C8:X
L=C0:SZL=14:GOSUB 920
F 210 RP$(C1)=" ":RP$(98)=" ":RP$(C2)
...$:YR=16:XR=33:SZR=C8:GOSUB 930:YR=
80:GOSUB 930:POKE 712,66
FI 220 TOPR=18:TOPC=18:SZR=C0:SZC=C0
:FRK=96:LDED=C0:AREA=C2:DIR=RT:X=C0:05
ET=50:B0SET=C6:R0SET=74:M0SET=89
KS 230 CKFLG=C0:FRK$=FRKL$:BODYC$=B0D
YL$:RACKC$=RACKL$:GOSUB 900
298 REM
299 REM *** MAIN LOOP ***
DI 300 STK=STICK(C0)
OP 302 SOUND C1,C0,C0,C0
OZ 310 ON AREA GOSUB 400,450,500,520,5
30,550,600
MU 390 GOTO 300
398 REM
399 REM *** AREA #1 - LEFT EDGE ***
AZ 400 IF STK=UP THEN GOSUB 1050
MG 410 IF (STK=DN) THEN GOSUB 1100
420 IF STK=RT THEN AREA=C2:SOUND C2
,d,12,10:DIR=RT
MU 430 RETURN
448 REM
449 REM *** AREA #2 LEFT PILE ***
QE 450 IF DIR=LT THEN GOSUB 1200
YX 460 IF DIR=RT THEN GOSUB 1250
ND 470 RETURN
498 REM
499 REM *** AREA #3 CENTER ***
YI 500 IF STK=UP THEN GOSUB 1300
UN 502 IF STK=DN THEN GOSUB 1350
DO 504 IF STK=LT THEN AREA=C2:DIR=LT
PY 506 IF STK=RT THEN AREA=C4:DIR=RT
NN 508 RETURN
518 REM
519 REM *** AREA #4 CENTER ***
SB 520 IF DIR=LT THEN GOSUB 1400
AL 522 IF DIR=RT THEN GOSUB 1450
NF 524 RETURN
529 REM *** AREA #5 RIGHT CENTER ***
YZ 530 IF STK=UP THEN GOSUB 1300
VI 532 IF STK=DN THEN GOSUB 1350
FU 534 IF STK=LT THEN AREA=C4:DIR=LT
SE 536 IF STK=RT THEN AREA=C6:DIR=RT
NI 538 RETURN
548 REM
549 REM *** AREA #6 RIGHT PILE ***
SK 550 IF SZR=C6 AND CKFLG=C0 THEN GO
SUB 3500
ZK 555 IF DIR=LT THEN GOSUB 1550
ME 560 IF DIR=RT THEN GOSUB 1500
ND 570 RETURN
598 REM
599 REM *** AREA #7 - RIGHT EDGE ***
HI 600 IF STK=UP THEN GOSUB 1650
IE 610 IF STK=DN THEN GOSUB 1700
HI 620 IF STK=LT THEN AREA=C6:DIR=LT
KI 630 RETURN
898 REM
899 REM *** MOVE FORKS & WORDS ***
KG 900 PM$(FRK+523)=FRK$:POKE 53250,X
*C4+05ET
KR 902 PM$(803)=RACKC$:POKE 53251,X*C4
+R0SET:POKE 53249,X*C4+M0SET
KI 905 A=USR(AADR,X+R0SET,120,BADR,35,
C7)
KB 910 IF LDED=C0 THEN RETURN
KO 915 A=USR(AADR,X,Y,CADR,SZC*C7,C7)
:RETURN
918 REM
919 REM *** REPLACE LEFT PILE ***
KI 920 IF SZL=C0 THEN RETURN
KO 925 A=USR(AADR,XL,YL,LPADR,SZL*C7,
C7):RETURN
928 REM
929 REM *** REPLACE RIGHT PILE ***
KO 930 IF SZR=C0 THEN RETURN
KI 940 A=USR(AADR,XR,YR,RPADR,SZR*C7,
C7):RETURN
998 REM
999 REM *** LOAD FORK LEFT PILE ***
OT 1000 TEMP$=LP$:IF (FRK/C8<TOPL+C2)
THEN RETURN
OG 1005 IF SZL=C0 THEN RETURN
OZ 1010 LDED=C1:C$(C8)=LP$:SZC=FRK/C8
-TOPL+C2:SZL=18-FRK/C8:TOPC=TOPL-C1
OK 1020 P=SZC*C7-C7:C$(P)=B$:IF SZL>
C0 THEN LP$=TEMP$(FRK/C8-TOPL)*C7+C1) N
OG 1030 TOPL=FRK/C8:YL=TOPL*C8:POKE 71
2,70:PITCH=50:GOSUB 1800:RETURN
1048 REM
1049 REM *** MOVE UP LEFT SIDE ***
OF 1050 SOUND C1,120,12,C8:IF LDED=C0
THEN GOSUB 1000
OI 1060 IF (FRK/C8-SZC)<=C0 THEN RETU
RN
OZ 1070 Y=TOPC*C8:FOR J=C1 TO 16:Y=Y-C
1:FRK=FRK-C1:GOSUB 900:GOSUB 920:IF FR
K>128 THEN GOSUB 1900
OU 1080 NEXT J:TOPC=TOPC-C2
PU 1090 RETURN
1098 REM
1099 REM *** MOVE DOWN LEFT SIDE ***
OD 1100 SOUND C1,130,12,C8:IF LDED=C0
THEN RETURN
OY 1110 IF (FRK/C8=TOPL) THEN GOSUB 11
50:RETURN
OS 1120 Y=TOPC*C8:FOR J=C1 TO 16:Y=Y+C
1:FRK=FRK+C1:GOSUB 900:GOSUB 920:IF FR
K>128 THEN GOSUB 1900
OR 1130 NEXT J:TOPC=TOPC+C2:RETURN
1148 REM
1149 REM *** UNLOAD LEFT SIDE ***
OB 1150 IF LDED=C0 THEN RETURN
OU 1160 TEMP$=C$(C8):IF FRK/C8<18 THEN
TEMP$(SZC*C7-13)=LP$
OV 1170 LP$=TEMP$:SZL=SZL+SZC-C2:TO
PL=TOPC+C1:YL=TOPL*C8:LDED=C0:POKE 712
,66:PITCH=150:GOSUB 1800:RETURN
1198 REM
1199 REM *** MOVE LEFT AREA #2 ***
ZO 1200 SOUND C2,90,12,C6:IF FRK/C8>TO
PL AND LDED=C1 THEN DIR=RT:GOSUB 1850:
RETURN
ZI 1205 IF FRK>144 THEN DIR=RT:GOSUB 1
850:RETURN
ZK 1210 IF X=C0 THEN AREA=C1:SOUND C2,
C0,C0,C0:RETURN
ZL 1220 X=X-C1:GOSUB 900:IF FRK=144 TH
EN GOSUB 1900
ZM 1230 IF LDED=C1 THEN GOSUB 920
ZU 1240 RETURN
1248 REM
1249 REM *** MOVE RIGHT AREA #2 ***
ZI 1250 SOUND C2,90,12,C6:IF X=C7 THEN
AREA=C3:SOUND C2,C0,C0,C0:RETURN
ZU 1260 X=X+C1:GOSUB 900
ZY 1270 IF LDED=C1 THEN GOSUB 920:IF F
RK=144 THEN GOSUB 1900
ZV 1280 RETURN
1298 REM
1299 REM *** GO UP CENTER ***
TI 1300 SOUND C1,120,12,C8:IF (FRK/C8-
SZC)<=C0 AND LDED=C1 THEN RETURN
TO 1305 IF FRK<=32 THEN RETURN
TR 1310 FOR J=C1 TO 16:Y=Y-C1:FRK=FRK-
C1:GOSUB 900:NEXT J:TOPC=TOPC-C2:RETUR
N
1348 REM *** GO DOWN CENTER ***
TR 1350 SOUND C1,130,12,C8:IF (FRK=160
) THEN RETURN
TS 1360 FOR J=C1 TO 16:Y=Y+C1:FRK=FRK+
C1:GOSUB 900:NEXT J:TOPC=TOPC+C2:RETUR
N
1398 REM
1399 REM *** GO LEFT CENTER ***
TI 1400 SOUND C2,90,12,C6:IF X=C6 THEN
AREA=C3:SOUND C2,C0,C0,C0:RETURN
TO 1403 IF X=23 THEN BODYC$=BLNK$:GOSU
B 900

```



```

BS 1404 IF X=21 THEN MOSET=-40
YN 1405 IF X=17 THEN OSET=58:BOSET=C6:
FRKCS=FRKLS:RACKCS=RACKLS:ROSET=66
MC 1406 IF X=14 THEN ROSET=74
UC 1407 IF X=10 THEN BODYCS=BODYLS:WOS
ET=89
GO 1410 X=X-C1:GOSUB 900:RETURN
1448 REM
1449 REM *** GO RIGHT CENTER ***
OP 1450 SOUND C2,90,12,C6:IF X>25 THEN
AREA=C5:SOUND C2,C0,C0,C0:RETURN
BC 1453 IF X=10 THEN BODYCS=BLNK$:GOSU
B 900
NB 1454 IF X=11 THEN MOSET=-44:ROSET=6
4
ZY 1455 IF X=15 THEN OSET=49:BOSET=-6:
FRKCS=FRKR$:RACKCS=RACKR$
JE 1456 IF X=17 THEN ROSET=24
PX 1457 IF X=20 THEN BODYCS=BODYR$:WOS
ET=26
ON 1460 X=X+C1:GOSUB 900:RETURN
1498 REM
1499 REM *** MOVE RIGHT AREA #6 ***
UD 1500 SOUND C2,90,12,C6:IF FRK/C8>TO
PR AND LDED=C1 THEN DIR=LT:GOSUB 1850:
RETURN
ZK 1505 IF FRK>144 THEN DIR=LT:RETURN
TH 1510 IF X=33 THEN AREA=C7:SOUND C2,
C0,C0,C0:RETURN
YV 1520 X=X+C1:GOSUB 900:IF FRK=144 TH
EN GOSUB 1900
FT 1530 IF LDED=C1 THEN GOSUB 930
PP 1540 RETURN
1548 REM
1549 REM *** MOVE LEFT AREA #6 ***
UZ 1550 SOUND C2,90,12,C6:IF X<26 THEN
AREA=C5:CKFLG=C0:SOUND C2,C0,C0,C0:RE
TURN
AO 1560 X=X-C1:GOSUB 900:IF FRK=144 TH
EN GOSUB 1900
OF 1570 IF LDED=C1 THEN GOSUB 930
OB 1580 RETURN
1599 REM *** LOAD WORDS RIGHT PILE ***
OX 1600 TEMP$=RP$:IF (FRK/C8<TOPR+C2)
THEN RETURN
OT 1605 IF SIZR=C0 THEN RETURN
OH 1610 LDED=C1:C$(C8)=RP$:SIZC=FRK/C8
-TOPR+C2:SIZR=18-FRK/C8:TOPC=TOPR-C1
NK 1620 P=SIZC*C7-C7:C$(P)=B$:IF SIZR
C0 THEN RP$=TEMP$((FRK/C8-TOPR)*C7+C1)
OS 1630 TOPR=FRK/C8:YR=TOPR*C8:POKE 71
2,70:PITCH=50:GOSUB 1800:RETURN
1648 REM
1649 REM *** MOVE UP RIGHT SIDE ***
OT 1650 SOUND C1,120,12,C8:IF LDED=C0
THEN GOSUB 1600
OY 1660 IF (FRK/C8-SIZC)<=C0 THEN RETU
RN
OR 1670 Y=TOPC*C8:FOR J=C1 TO 16:Y=Y-C
1:FRK=FRK-C1:GOSUB 900:GOSUB 930:IF FR
K>128 THEN GOSUB 1900
NA 1680 NEXT J:TOPC=TOPC-C2
OR 1690 RETURN
1698 REM
1699 REM *** MOVE DOWN RIGHT SIDE ***
OP 1700 SOUND C1,130,12,C8:IF LDED=C0
THEN RETURN
OR 1710 IF (FRK/C8=TOPR) THEN GOSUB 17
50:RETURN
OV 1720 Y=TOPC*C8:FOR J=C1 TO 16:Y=Y+C
1:FRK=FRK+C1:GOSUB 900:GOSUB 930:IF FR
K>128 THEN GOSUB 1900
RN 1730 NEXT J:TOPC=TOPC+C2:RETURN
1748 REM
1749 REM *** UNLOAD RIGHT SIDE ***
NN 1750 IF LDED=C0 THEN RETURN
ON 1760 TEMP$=C$(C8):IF FRK/C8<18 THEN
TEMP$(SIZC*C7-13)=RP$
ND 1770 RP$=TEMP$:SIZR=SIZR+SIZC-C2:TO
PR=TOPC+C1:YR=TOPR*C8:LDED=C0:POKE 712
,66:PITCH=150:GOSUB 1800:RETURN
1798 REM
1799 REM *** DING ***
OR 1800 FOR J=12 TO C1 STEP -C1:SOUND
C0,PITCH,10,J:NEXT J:SOUND C0,C0,C0,C0
:RETURN
1848 REM
1849 REM *** CRASH ***
NR 1850 FOR J=15 TO C1 STEP -C1:SOUND
C1,200,C0,J:NEXT J:SOUND C1,C0,C0,C0:R
ETURN
1898 REM
1899 REM *** PRINT THE DOCKS ***
RO 1900 A=USR(AADR,C0,145,DADR,12,C6):
A=USR(AADR,34,145,DADR,12,C6):RETURN
1998 REM
1999 REM *** SET UP WORDS ***
OK 2000 LP$=" _____ ":LP$(98)="
":LP$(15)=LP$:RESTORE 2100:PICK=INT(R
ND(C0)*C9)+C1
KK 2010 FOR J=C1 TO PICK:READ MCH$:NE
XT J:CNT=C0:FOR J=C3 TO 87 STEP 14
SO 2020 LINE=INT(RND(C0)*C9)+C1
OU 2021 IF RND(C0)<0.33 THEN LINE=PICK
"
OD 2022 RESTORE 2100+10*LINE:K=INT(RND
(C0)*C5)+C1:FOR L=C1 TO K:READ WD$:NEX
T L
OS 2024 FOR Q=C3 TO J STEP 14:IF WD$=L
P$(Q,Q+C2) THEN 2020
OE 2026 NEXT Q
OF 2030 IF LINE=PICK THEN CNT=CNT+C1:I
F CNT>C3 THEN 2020
OG 2040 IF J=31 AND CNT=C0 THEN 2020
OH 2042 IF J=59 AND CNT=C1 THEN 2020
OI 2044 IF J=87 AND CNT=C2 THEN 2020
ON 2060 LP$(J,J+C2)=WD$:NEXT J
OR 2070 ? CHR$(125):POKE 656,C0:POKE 6
57,22:?"get 3 _";MCH$;" words":POKE
559,62
OV 2090 RETURN
OP 2100 DATA AN,ED,AT,OT,UN,AD,AG,ID,A
P
OU 2110 DATA CAN,PAN,RAN,FAN,MAN
OZ 2120 DATA BED,FED,LED,RED,WED
ZX 2130 DATA BAT,CAT,SAT,FAT,RAT
NO 2140 DATA HOT,POT,NOT,LOT,ROT
OH 2150 DATA BUN,GUN,FUN,RUN,SUN
OY 2160 DATA MAD,SAD,LAD,BAD,HAD
OZ 2170 DATA BAG,SAG,TAG,RAG,WAG
OA 2180 DATA BID,LID,HID,DID,RID
OL 2190 DATA CAP,LAP,SAP,MAP,ZAP
2998 REM
2999 REM *** INITIALIZE ***
MN 3000 C0=0:C1=1:C2=2:C3=3:C4=4:C5=5:
C6=6:C7=7:C8=8:C9=9
MY 3010 DIM LP$(98),RP$(98),C$(112),TE
MP$(98),M$(C7),B$(C7),F$(C9)
OP 3020 LPADR=ADR(LP$):RPADR=ADR(RP$):
CADR=ADR(C$):TADR=ADR(TEMP$):FADR=ADR(
F$):C$(1)=" ":C$(112)=" ":C$(2)=C$
C$
OY 3030 UP=14:DN=13:LT=11:RT=C7
OX 3050 GRAPHICS C8:POKE 559,C0:PM=PEE
K(106)-40:POKE 54279,PM:POKE 53258,C1:
POKE 706,166:POKE 53277,C3
OX 3060 VVTP=PEEK(134)+PEEK(135)*256:5
TARP=ADR(PM$):OFF5=PM*256+1024-5TARP:H
I=INT(OFF5/256):LO=OFF5-HI*256
OT 3070 POKE VVTP+C2,LO:POKE VVTP+C3,H
I:POKE VVTP+C5,C4:POKE VVTP+C6,C0:POKE
VVTP+C7,C4
ON 3075 PM$(C1)=CHR$(C0):PM$(1024)=CHR
$(C0):PM$(C2)=PM$
NN 3080 DIM FRKL$(20),FRKR$(20),FRKC$(
20):FOR J=C2 TO 16:FRKL$(J)=CHR$(C1):F
RKR$(J)=CHR$(128):NEXT J
OZ 3090 FOR J=17 TO 19:FRKL$(J)=CHR$(2
55):FRKR$(J)=CHR$(255):NEXT J:FRKL$(20
)=CHR$(C0):FRKR$(20)=CHR$(C0)
OD 3100 POKE 710,32:POKE 623,C1:DI...
CH$(C2),WD$(C3)
OH 3110 DIM BODYL$(35),BLNK$(35):BODYL
$=" | _ | _ | _ | _ | _ | _ | _ | _ |
"
OU 3120 DIM BODYR$(35),BODYC$(35):BODY
R$=" | _ | _ | _ | _ | _ | _ | _ | _ |
":BADR=ADR(BODYC$)
OR 3130 BLNK$(C1)=" ":BLNK$(35)=" ":BL
NK$(C2)=BLNK$:FOR J=34 TO 194:PM$(J,J)
=CHR$(255):NEXT J
OR 3140 POKE (704),42:POKE 53248,110:P
OKE 53256,C3
OD 3150 DIM RACKL$(160),RACKR$(160),RA
CKC$(160):RACKL$(C1)=CHR$(192):RACKL$(
C2)=CHR$(64):RACKL$(150)=" "
OO 3160 RACKL$(C3)=RACKL$:RACKR$(C1)=C
HR$(C3):RACKR$(C2)=CHR$(C2):RACKR$(150
)=" ":RACKR$(C3)=RACKR$
OZ 3170 RESTORE 3180:FOR J=150 TO 160:
READ A:RACKL$(J,J)=CHR$(A):NEXT J

```

```

BT 3172 RESTORE 3182:FOR J=150 TO 160: 550
READ A:RACKR$(J,J)=CHR$(A):NEXT J
BT 3180 DATA 8,28,62,54,99,99,99,54,62
,28,8
BT 3182 DATA 16,56,124,108,198,198,198
,108,124,56,16
BT 3190 POKE 707,C4
BT 3200 RESTORE 3210:FOR J=444 TO 450:
:NEXT K
READ A:PM$(J,J)=CHR$(A):NEXT J:POKE 70
5,C4
BT 3210 DATA 8,28,62,62,62,28,8
BT 3220 DIM DOCK$(12):DOCK$="
|||":DADR=ADR(DOCK$):GOSUB 1900
BT 3230 A=PEEK(560)+256*PEEK(561)
BT 3240 IF PEEK(A)<66 THEN A=A+C1:GOT
O 3240
BT 3250 POKE A,70:POKE A+C3,C6:POKE A+
C4,C6:POKE A+C5,C6
BT 3300 RETURN
7498 REM
99 REM *** CHECK FOR DONE ***
BT 3500 CNT=C0:CKFLG=C1:PITCH=40
BT 3510 IF RP$(C4,C5)=MTCH$ AND RP$(18
,19)=MTCH$ AND RP$(32,33)=MTCH$ THEN 3
BT 3520 RETURN
BT 3550 FOR K=C0 TO C9:POKE 656,C0:POK
E 657,22:" great job!!! ":PITCH=
100-C5*K:GOSUB 1800
BT 3560 POKE 656,C0:POKE 657,22:"
":FOR L=C0 TO 10:NEXT L
BT 3580 POKE 559,C0:BODYC$=BLNK$:A=USR
(AADR,X+B05ET,120,BADR,35,C7):PM$(FRK+
523,FRK+542)=PM$(FRK+443,FRK+562)
BT 3590 POP :GOTO 200
3998 REM
3999 REM *** GR. 8 ROUTINE ***
BT 4000 DIM A$(257):RESTORE 4010:FOR J
=1 TO 257:READ A:A$(J,J)=CHR$(A):NEXT
J:AADR=ADR(A$):RETURN
BT 4010 DATA 216,104,104,104,133,203,1
04,104,133,204,169,0,133,205,6,204,30,
205,6,204,30,205,6,204,30
BT 4020 DATA 205,165,204,24,101,88,133
,206,165,205,101,89,133,207,6,204,38,2
05,6,204,38,205,165,204,24
BT 4030 DATA 101,206,133,206,165,205,1
01,207,133,207,165,206,24,101,203,133,
206,141,133,6,165,207,105,0,133
BT 4040 DATA 207,141,134,6,104,133,213
,104,133,212,104,104,141,129,6,206,129
,6,104,104,141,131,6
BT 4050 DATA 169,0,141,132,6,141,130,6
,169,0,141,128,6,172,130,6,177,212,16,
5,206,128,6,41,127,201,32
BT 4060 DATA 176,5,24,105,64,16,7,201,
96,176,3,56,233,32,133,204,169,0,133,2
05,133,208,6,204,38
BT 4070 DATA 205,6,204,38,205,6,204,38
,205,165,205,24,109,244,2,133,205,164,
208,177,204,77,128,6,172
BT 4075 DATA 132,6,145,206
BT 4080 DATA 230,208,165,208,201,8,240
,15,165,206,24,105,40,133,206,144,227,
230,207,208,223
BT 4090 DATA 144,160,238,132,6,238,130
,6,206,129,6,48,43,173,132,6,205,131,6
,208,22,169,0,141,132,6,24,173,133,6
BT 4100 DATA 105,64,141,133,6,173,134,
6,105,1,141,134,6,173,133,6,133,206,17
3,134,6,133,207,24,144,200,96

```

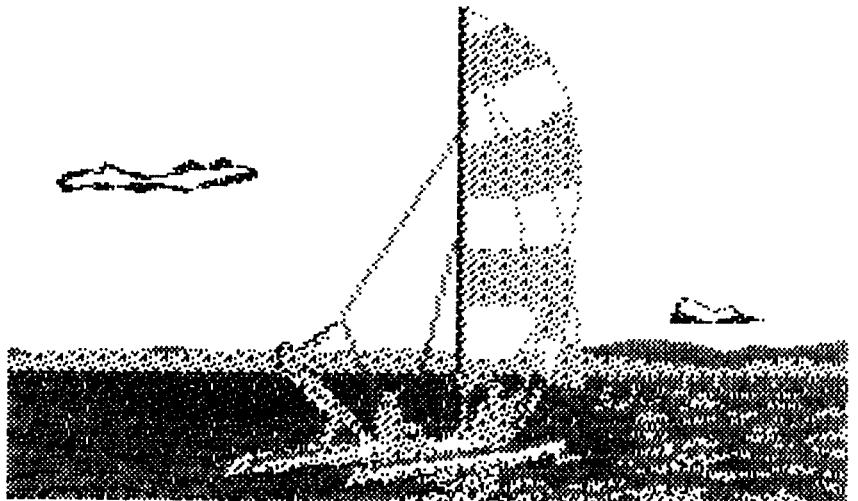


ANSWERS: POPULAR GAMES AUG86

```

.....
. DALLAS CONAN P .
. I A Q I .
. REALITY U T .
. E S E S .
. N M S T .
. T DECATHLON.
. MUDPIES R R P .
. U E C O .
. N BRUCELEE N .
. I V N .
. V GREMLINS A .
. E O C ZORK .
. R O P E O Y M .
. SUNDOG R A .
. E I P R R .
. E E O V M .
. SPYVSPY ULTIMAIV.
. E A N G .
. W M .
. KENNEDYAPPROACH.
.....

```



# TUTORIAL NO.1

by Elaine Hopper



Well at last I did succeed  
a program now complete indeed  
Much of time and trust to luck  
maybe I'll make me a buck

Then as through the air I sail  
daughter comes in with the mail  
Inside Info here at last  
I'll send them my effort fast

Then as reading on I go  
one tale here is of woe  
Tells of memory there to save  
paths of efficiency then to pave

Then all my work to make it plain  
so others then can work the game  
Sacrifice of fastest place  
I feel that I am in disgrace

Then my choice of how to get  
Speed, Difficulty, and Help yet  
IF and THEN are problem two  
at least in Larry O'Keefe's view

And problem number three he says  
is the GOTO I use these days  
But what to use and not come back  
maybe learning is what I lack

Forget the dreadful INPUT now  
brings TRAPS, more GOTO's and wow  
Worst of all are constant prints  
has he seen and he's giving hints

On variables I've laid my base  
as few as possible in his place  
Glad I am that I'm in mine  
for word games they are divine

So with old favourites out the door  
I sure hope he gives us more  
How to input words and phrases  
this idea - it quite amazes





# EFFICIENT PROGRAMMING

## PART I I

by Robert (Larry) Lanigan-O'Keefe

The thoughts expressed in part 1 of this article are common to many programmers who look back after mastering other languages like Pascal/Action/C/ etc, to review or examine a BASIC program. Often they see utter dis-organization, linear thinking, bad program design, and inefficient memory usage, despite the fact that the program has amazing concepts, fascinating tricks and has taken someone many hours to perfect.

The concepts which one picks up in the higher languages is to procedurize the structure, using less numbers but more variables, very few "IF" commands, or delay "FOR LOOPS", (loops which often stop all motion while active). One immediately sees tremendous use of "GOSUB" commands (virtually everything is a sub-routine). And why use an "IF" when conditional mathematics do the job faster and with more control.

So what are "conditional mathematics"?

The typical conditional statement occurs in the dreaded "IF" command "IF (X=Y) THEN GOSUB" or "IF (X>Y) THEN GOSUB". Depending on how the condition in the brackets is viewed, whether true or false points the program in a different direction responding according to your logical needs. This is caused by the fact that a "true" conditions return a value of "1" and so here, the GOSUB is used: the "false" condition returns the value "0", so the GOSUB would not be called into play. In mathematics the same applies, as illustrated by the following:-

1.  $X=X+1*(Y>10)$  if  $Y>10$  then the statement is true, and equals the value of  $X$  plus "1"  
if  $Y\leq 10$  then it is false and  $X$  remains unchanged.

#### SOLUTIONS

if  $Y=11$ ,  $X=7$ , then the new value of  $X$  is 8.  
if  $Y=9$ ,  $X=7$ ,  $X$  is unchanged.

2.  $X=X*(Y>10)$

#### SOLUTIONS

$X=X$  or  $X=0$

3.  $X=(X>10)+2*(X<10)$

#### SOLUTIONS

$X=1$  or  $X=2$  or  $X=X$  if  $X=10$

4.  $X=(NOT X)$

#### SOLUTIONS

IF  $X=1$  then  $X=0$

IF  $X=0$  then  $X=1$

There are many such conditional operations in mathematics and if used in moderation can greatly increase the the operating speed of the program, using the memory more efficiently for more elaborate programs. Why bog a program down with IFs and Horrid Code?

The logic of conditional mathematics lends itself to that



infrequently used command "ON (condition) GOSUB". It is here that the programming becomes very effective. The beauty of the "ON-GOSUB" is that many Gosubs can be activated from the one command, and in the one line. For instance, lets assume that you have created a menu, called from disk or memory. It is alphabetical, with options "A" to "J". Each option must run a different application, so we make each application a sub-routine. In the computer's architecture, there is an algorithm which identifies each character or letter. Letters A to J are represented as values. The Standard ASCII code gives these as 65 to 75. So the the best method of determining the value is to use the "GET" command from the keyboard. This can be trimmed by simple mathematical manipulation to give a response in that range or request another input. Now using an "ON-GOSUB" the program will divert to the respective GOSUB, dependent on the value of the key.

```

10 CLOSE #1:OPEN #1,4,0,"K:"
20 PRINT " MENU a.. b.. c.. d.. e.. f.. g.. h.. i.. j.. "
30 ? "A-->J ?";:GET #1,A:POKE 20,0:POKE 19,0
35 ON (A<65) +(A>75) GOTO 30
40 ON (A-64) GOSUB 50, 60, 70, 80, 90, 100, 110, 120, 130,
140 :GOTO 20
50 ?"50 clocks ="; PEEK(19), PEEK(20):RETURN
60 ?"60 clocks ="; PEEK(19), PEEK(20):RETURN
70 ?"70 clocks ="; PEEK(19), PEEK(20):RETURN
  et cetera et cetera

```

Do the same for lines 80 to 140 in steps of ten.

One Short way or typing RETURN is "RET." OR USE THE SCREEN EDITOR TO re-enter the same line, with different numbers. List the program to make sure it is all there, and RUN it. Stop the program and determine free memory using

```
? FRE(0)
```

Now delete lines 35 and 40. Check free memory. You can write the program now using IF statements. You have from lines 31 to 49 to fit in all your IF commands. Again check free memory. I believe you will agree that the "IF" logic consumes heaps of memory, and then the reaction time of the system itself differs greatly from the input-reaction of the first IF to the last IF (ten commands later on).

There is not much missing from the above example, but other things may cloud the issue. Basically if A has a value of 67, the letter "C", then A-64 gives a value of 3, the gosub now put into action is that which occurs at line 70 as the third routine is activated, which then prints the number 70, then the internal clock times to reach that gosub. The two GOTO commands are needed to request a new number in the range in line 30, and then in line 40 to return the user to the original menu after returning from the gosub.

My favourite pet hate is the rem-ark statement... a waste of good memory, but there are ways of writing the program with rems and not corrupting the active area, the lowest memory locations. The best way is to define the user lines, say, from 0 to 999. then all the remarks, line for line starting at line 1000... To list the programme in ATARI basic showing both lines together is a simple "FOR LOOP":-

```
900 X=1.01:FOR I=0 TO 999: LIST I:LIST I+1000:X=X^X:X=SQR(X): NEXT I
```

The reading delay is caused by floating point mathematics. AGAIN all motion stops if this is used. Still, for every line we can read the rem.. Save the total program with the file name VER1LAZ, and it will be 75 sectors. List the program to disk or tape, and you can edit out the rems in one hit by simply:-

```
LIST "D:LAZRGUNR",0,899
or LIST "C:",0,899
```

The listed file is inclusive lines 0 to 899. Now NEW the program, then ENTER it back in. All the variables will be clean, rubbish stripped out. Now Re-save the program to your game disk or tape as a Load and run file and will be about 45 sectors. Only if you have the need to read the remarks, will it be necessary to load in your fully saved version. REMS only assist in following the program and are slow downers in any program, whether at the beginning or end. They are horrid to find in the program when tagged onto the ends of lines, and serve to slow it down.

Enough on basics, lets get down to the nitty gritty. Some years ago, the reputable magazine "COMPUTE!" published a fast action game called "Laser Gunner" (NOV.1982). Many of us novices typed it in and almost gave up computing. No it wasn't that bad, but it wasn't that good. It was the typical BASIC game where all action stopped while missiles were blasting your protective wall to pieces. Sure it does not take much to fix it up by a few little changes here and there, but that is not the point. Some time ago, I contemplated how to modify the game, to write a total program without one "IF", and perhaps no "GOTO" statements.

This program worked by an amazing trick using a string (lets call it PM\$) and by telling ANTIC the starting address any string adjustments give vertical movements to both player and alien independently. You can't do that in basic they said, but it is possible. To do the bullets and missiles, a fifth player is used, where each whole byte in the word which makes that player can be driven independently across the screen at the same time. Lines 11 and 23 of the listing show the bullet and missile can exist at the same string location !!! Line 11 gives the Bullet a value of "1" and line "23" a value of "8" . For both to co-exist at the same location, the value must be "1+8" or "9".

I have left a few little bugs in the program for your logical analysis. The first is to allow both the bullet and the missile to concurrently share this location, or to clear out only one. I have told you the answer, it is for you to play with.

The second bug is when the wall vapourizes, while a bullet is being fired. As the wall vanishes, the Alien may explode several times and wipe out your score. To fix this bug, you must trace out the program steps. This is not difficult to do.

The hard part is that I use variables for almost everything, and in this program there are about 90 of them. But that can make the program easier to follow if you list lines 701 to 710 or refer to the listing.



I will point out, that this is not the final version, rather in following articles/ letters to the editor etc., we will explore methods to make the program run faster and faster, to get to that point where it is addictive, to change the sounds and to give the missiles more impact. I am not talking of a total re-write, just a few quick modifications to this listing, an append here, a delete there. For this is an educational version of the game, the purpose is to better our collective programming skills. I will state that this program is just the skeleton of a "BORING" bang-bang shoot-em up game, however it is a jumping off point to get into fast application programming, Buisness programming, and higher languages. We must all consider this as a challenge.

Still this version has many degrees of motion; rotation of the alien in-game only; extra-lives; bonuses; high scores; points deducted for bad plays; and points depending on difficulty of the shot. It does not have any "pause", nor does it have music, and it is cumbersome since it is almost pure structured programming. There are faster routines and these we will explore in future articles.

BEFORE YOU TYPE THE PROGRAM "LASER GUNNER VERSION II" TAKE NOTE  
 POKE 82,0 Before doing anything!!!  
 ON (cond) GOSUB cannot be shortened  
 ON (cond) GOS. will error!!!  
 N. is OK to use for NEXT  
 POS. will also expand to be POSITION  
 RET. is great for RETURN  
 SO. is SOUND

If you haven't done it, POKE 82,0 RIGHT NOW!!

This will adjust your left margin to position 0 and give an extra line length. Some of the lines are huge and will need every bit of stealth to cram them in....

MORE EXCITEMENT NEXT EDITION... Happy bug hunting...

```

1 REM KE 20,0:POKE 19,0 RT 90 ? "90 CLOCKS=";PEEK(19),PEEK(20)
2 REM # EFFICIENT PROGRAMMING # AN 35 ON (A<65)+(A>75) GOTO 30 :RETURN
3 REM # LISTING 1. ON GOSUB # NR 40 ON (A-64) GOSUB 50,60,70,80,90,100 100 ? "100 CLOCKS=";PEEK(19),PEEK(20)
4 REM # by Larry O'Keeffe # 00,110,120,130,140:GOTO 20 0):RETURN
5 REM # Published by Atari Computer # GN 50 ? "50 CLOCKS=";PEEK(19),PEEK(20) GU 110 ? "110 CLOCKS=";PEEK(19),PEEK(20)
6 REM # Enthusiasts (N.S.M.) # :RETURN 0):RETURN
7 REM # OCTOBER 1986 # GV 60 ? "60 CLOCKS=";PEEK(19),PEEK(20) BF 120 ? "120 CLOCKS=";PEEK(19),PEEK(20)
8 REM # :RETURN 0):RETURN
OC 10 CLOSE #1:OPEN #1,4,0,"K:" HO 70 ? "70 CLOCKS=";PEEK(19),PEEK(20) BO 130 ? "130 CLOCKS=";PEEK(19),PEEK(20)
RN 20 ? "MENU A.. B.. C.. D.. E.. F.. :RETURN 0):RETURN
G.. H.. I.. J.." HT 80 ? "80 CLOCKS=";PEEK(19),PEEK(20) GB 140 ? "140 CLOCKS=";PEEK(19),PEEK(20)
SX 30 ? "A-->J";:GET #1,A?: CHR$(A):PO :RETURN 0):RETURN

1 REM # :MENU A.. B.. C.. D.. E.. F.. QD 30 IF (A=68) THEN GOSUB 68
2 REM # EFFICIENT PROGRAMMING # G..H.. I.. J.. K.. L.. M.. N.. O.. P.. SB 31 IF (A=69) THEN GOSUB 69
3 REM # LISTING 2. IF GOSUB # Q.. R.. S.. T.. U.. V.. " GR 32 IF (A=70) THEN GOSUB 70
4 REM # by Larry O'Keeffe # NT 25 ? "CHOICE A-->V >";:GET #1,A?: TE 33 IF (A=71) THEN GOSUB 71
5 REM # Published by Atari Computer # CHR$(A):? :POKE 19,0:POKE 20,0 JR 34 IF (A=72) THEN GOSUB 72
6 REM # Enthusiasts (N.S.M.) # RU 26 IF (A<65) OR (A>86) THEN 25 LE 35 IF (A=73) THEN GOSUB 73
7 REM # OCTOBER 1986 # NU 27 IF (A=65) THEN GOSUB 65 MR 36 IF (A=74) THEN GOSUB 74
8 REM # :MENU A.. B.. C.. D.. E.. F.. OH 28 IF (A=66) THEN GOSUB 66 OE 37 IF (A=75) THEN GOSUB 75
OC 10 CLOSE #1:OPEN #1,4,0,"K:" PU 29 IF (A=67) THEN GOSUB 67 PR 38 IF (A=76) THEN GOSUB 76

```

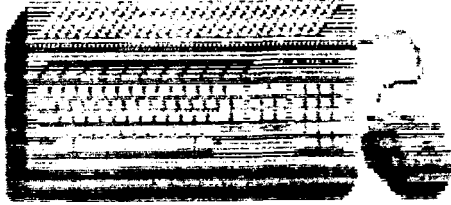
```

RE 39 IF (A=77) THEN GOSUB 77
RY 40 IF (A=78) THEN GOSUB 78
TL 41 IF (A=79) THEN GOSUB 79
LB 42 IF (A=80) THEN GOSUB 80
JO 43 IF (A=81) THEN GOSUB 81
LB 44 IF (A=82) THEN GOSUB 82
HO 45 IF (A=83) THEN GOSUB 83
OB 46 IF (A=84) THEN GOSUB 84
PO 47 IF (A=85) THEN GOSUB 85
RB 48 IF (A=86) THEN GOSUB 86
FU 49 ? PEEK(19),PEEK(20):? :? :GOTO 2
0
BG 0 GOSUB 600:GOSUB 20
SE 1 FOR S=C1 TO C2 STEP C0:POKE HCR,C
0:TR=STRIG(C0):STK=STICK(C0):GOSUB C2:
GOSUB C5:GOSUB C4:GOSUB C7:GOSUB 26:NE
XT 5
YH 2 ON ((TR=C0)*(BUL=C0))+C2*(BUL)C0
GOSUB C0,C3:RETURN
IF BUL=BUL+C5:POKE PE,BUL:ON (BUL)11
0)*:(PEEK(C0L)C0) GOSUB CL:ON (BUL)CT)
GOSUB CV:RETURN
RZ 4 AV=PEEK(C6):AV=AV-(C2*(AV)CR)*(AV
-CK)):MQ=CW-INT(AV/C3):POKE AH,MQ:RETU
RN
TY 5 UP=ST(C0,STK):HP=ST(C1,STK):AP=AP
+UP*((AP)CL)+(AP)CR))+C2*((AP)CL)-(AP)
CR))
TS 6 PP=PP+HP*((PP)C5)+(PP)CY))+C2*(PP
C5)-C2*(PP)CY):POKE PH,PP:PM$(P0+AP,P
0+AP+CD)=PL$:RETURN
OX 7 ON (MSL=C0)*(TAG(INT(AV/CA))(CA)+
C2*(MSL)C1) GOSUB CZ,C9:POKE CX,C0
MA 8 ON (AB5(AP-AY)=C0) GOSUB CG:GOSUB
RL:RETURN
LZ 9 MSL=MSL-(MSL)90)*C5:ON (MSL)99) G
OSUB CA:POKE MP,MSL:POKE AUC,MSL:RETUR
N
K 10 MSL=C0:PM$(M5+MH+C5,M5+MH+C5)="
":GOSUB LP:RETURN
OX 11 BUL=PP:BUV=AP:PM$(M5+BUV+C5,M5+B
UV+C5)="P":GOSUB C3:POKE AUD,BUL:RETUR
N
FX 12 AP=AP-(C1*(AP)CL):ON (AP)LP) GO
SUB 22:RETURN
ZU 13 AP=AP+(C1*(AP)116)):ON (AP)115)
GOSUB 22:RETURN
QR 14 AY=AY-(C1*(AY)CL):ON (AY)LP) GO
SUB CG:RETURN
QU 15 AY=AY+(C1*(AY)116)):ON (AY)115)
GOSUB CG:RETURN
PI 18 MSL=MQ:MH=AY:PM$(M5+MH+C5,M5+MH+
C5)=CHR$(C8):POKE AUE,CC
FI 19 ON (UP)+C2*( NOT UP) GOSUB CE,CF
:PM$(P1+AY,P1+AY+CF)=AL$:RETURN
QU 20 UP=C1*( NOT UP):RETURN
CA 21 ON (PUP)+C2*( NOT PUP) GOSUB CC,
CD:GOSUB C6:RETURN
OH 22 PUP=C1*( NOT PUP):RETURN
FA 65 ? "65":RETURN
FK 66 ? "66":RETURN
FU 67 ? "67":RETURN
GE 68 ? "68":RETURN
GO 69 ? "69":RETURN
DK 70 ? "70":RETURN
DU 71 ? "71":RETURN
EE 72 ? "72":RETURN
EO 73 ? "73":RETURN
EV 74 ? "74":RETURN
FU 75 ? "75":RETURN
FS 76 ? "76":RETURN
GC 77 ? "77":RETURN
GT 78 ? "78":RETURN
GX 79 ? "79":RETURN
DS 80 ? "80":RETURN
EO 81 ? "81":RETURN
ET 82 ? "82":RETURN
EX 83 ? "83":RETURN
FC 84 ? "84":RETURN
FO 85 ? "85":RETURN
GA 86 ? "86":RETURN
KT 23 BUL=0:POKE PE,BUL:PM$(M5+BUV+C5,
M5+BUV+C5)=CHR$(0):RETURN
UD 26 KX=KX+C1:ON (KX=C5) GOSUB FA:PM$(
P1+AY+C6,P1+AY+C6)=ALW$(KX,KX):RETURN
UL 27 KX=C1:RETURN
OX 28 GOSUB OK:GOSUB FC:GOSUB RL:GOSUB
FC:GOSUB RL:GOSUB FC:ON PEEK(C0M)C7
GOTO FD:POKE AUE,C0:ON P=C0 GOSUB 721
:GOTO FB
AP 29 POSITION CG,CF:? "PRESS START":G
OSUB C4:PP=(AV/C6)+62:GOSUB RL
SV 30 POSITION CG,CF:? "PRESS START":R
ETURN
XX 31 ? "X":GOSUB 721:GOSUB CH:GOTO C1
FO 32 JK=LV:SC=SC+INT(BUL)-130:LV=INT(
LV+((SC/1000)-SCR)):GOSUB CV:GOSUB 65:
GOSUB CH:RETURN
OU 33 Z2=P2+MH+C5:P=ASC(PM$(Z2))*C2-CJ
:GOSUB 34:ON (P=C0) GOSUB 35:RETURN
TO 34 PM$(Z2,Z2)=CHR$(P):Z1=Z2:RETURN
ZK 35 Z1=Z1+C1:Z2=Z2-C1:ON (Z1)NB) GO
SUB C5:GOSUB C2:ON (Z2)MT-C2) GOSUB 61:
GOSUB FE:ON (Z2)MT) OR (Z1)NB) GOTO 35
BY 36 FOR I=30 TO C1 STEP -1:POKE BAR,
C5+(FD-I):FOR J=C0 TO CG STEP C3:5OUND
C0,J+I,CA,C0:POKE 707,PEEK(TIM)
SS 37 NEXT J:NEXT I:5OUND C0,C0,C0,C0:
5OUND C1,C0,C0,C0:POKE 707,CE:I=I-I+C1
^C1:POKE 707,C0:5C=5C-FE
UB 38 FOR I=C0 TO CF STEP 0.2:5OUND C0
,I,C0,I:POKE 704,16+I:NEXT I:5OUND C0,
C0,C0,C0:HL=CFF:GOSUB 56:HL=C0
KV 39 GOSUB 56:LV=LV-C1:GOSUB 99:GOSUB
CH:GOSUB 721:RETURN
UJ 50 5OUND C1,Z1,C8,CA:5OUND C0,Z2,C6
,CA:RETURN
ZU 56 Z1=AP+C5:Z2=Z1:INC=0
UV 57 Z1=Z1+INC*(Z1)120):Z2=Z2-INC*(Z2
)=0):POKE 704,PEEK(53770):PM$(P0+Z1,P0
+Z1)=CHR$(CFF)
XS 58 PM$(P0+Z2,P0+Z2)=CHR$(HL):POKE 5
3279,0:INC=INC+0.5:ON (Z1)120)+(Z2)C4)
GOTO 57,57
OY 59 FOR I=1 TO 100:POKE 704,PEEK(537
70):NEXT I:FOR I=C0 TO C7:POKE 53248+I
,0:NEXT I:RETURN
HZ 60 PM$(Z1,Z1)=CHR$(0):RETURN
HX 61 PM$(Z2,Z2)=CHR$(0):RETURN
UY 65 FOR I=1 TO 170 STEP 13:5OUND 0,1
50,4,15:5OUND 1,200,6,15:PM$(P1+AY,P1+
AY+13)=EX$(I,I+13)
IU 66 POKE 705,PEEK(53770):NEXT I:X=XA
1.1:5OUND 1,0,0,0:5OUND 0,0,0,0:AY=INT
(78*5OUND(0)+32):RETURN
NO 99 POSITION 22,0:? " " " :P
OSITION 4,2:? " "
"
NI 100 ON (5C)H5C) GOSUB 120:POKE 77,0
:POKE 705,107
ZB 101 POSITION 0,0:? "Laser Gunners
":LV$(C1,LV+C1):POSITION 4,2:? "HI=":H
5C:POSITION 24,2:? "SCR=":5C
AO 102 POSITION 23,0:? " ":POSITION 15
,18:? " " " :ON (LV=0
)+C2*(LV)JK) GOSUB 103,110:RETURN
ZP 103 POP :POP :POP :POP :POP :POSITI
ON 15,10:? "THE EARTH IS DESTROYED"
HO 104 POSITION 15,11:? "YOU HAVE LOST
ALL!!! " :POSITION 15,18:? "PRESS STAR
T FOR WAR!":5C=100
OH 105 ON (PEEK(C0M)=7) GOSUB 100
OX 106 LV=5:GOSUB 721:GOTO 28
YA 110 5OUND 1,100,10,15:X=1.1:X=X^X:5
OUND 1,150,10,10:X=5QR(X):5OUND 1,50,1
0,10:X=X^X:5OUND 1,0,0,0
UJ 111 SCR=INT(5C/1000):RETURN
NH 120 H5C=5C:RETURN
BY 600 GRAPHICS 0:POKE 82,0:POKE 710,0
NY 699 H5C=100:LV=6:5C=100
GU 700 K1=1024:K2=2048
UT 701 C0=0:C1=1:C2=2:C3=3:C4=4:C5=5:C
6=6:C7=7:C8=8:C9=9:CA=10:CB=11:CC=12:C
D=13:CE=14:CF=15
SS 702 CG=20:CH=100:CI=46:CJ=256:CK=12
7:CL=32:CM=120:CN=512:CR=118:C5=60:CT=
200:CV=23:CW=180:CX=77:CY=82:CZ=18
EU 703 CFF=255:BUL=C0:PP=62:LV=C5:JK=L
V:PH=53248:AH=53249:PE=53252:MP=53253:
COL=53256:CON=53279:HCR=53278
UE 704 BAR=53251:AUD=53763:AUC=53760:A
UE=53761:TIM=53770:LP=33:RL=19:OK=21:F
A=27:FB=28:FC=29:FD=31:FE=50
UH 710 DIM PM$(K2),AL$(CD),PL$(CB),NUS

```







# FORUM OF AUSTRALIAN ST'S

Co-ordinator  
Philip Hayne

Hi there ST'ers this time we have a lot to talk about ,firstly here are some software reviews:

## WINTER GAMES By EPYX

This is a new game from Epyx that allows you to partake in the Winter Olympic Events. One to eight people can take part in the game, each player represents a country of their choice with the ST displaying it's Flag and Anthem. There are six events to compete in, Bobsled, Ski Jump, Figure Skating, Free-style Skating, Hot Dog Stunt jumps and Biathlon. The first thing you notice is the outstanding quality of the graphics in all the events. The play mechanics are excellent using 1 or 2 joysticks or keyboard. The events range from easy to hard, always trying to get that perfect score!

## N-VISION (A.N.A. PAINTWORKS) By Audio Light/Activision

This is the latest Paint program for the ST. It is made by Audio Light, who also made Activisions Music Studio (news:Activision now sells N-Vision, renamed Paintworks.) and as such has some interesting features that permit a very good audio-visual show to be made up. It can best be described as a cross between DEGAS & NEOCHROME. The paint area is 1 or 2 screens high, with a 2 screen picture a printout fills the full 8.5"x11" page. In addition to the main screen there is also a second screen for use as a clipboard for temp storage of images, patterns, doodling, etc. All options are selected with the mouse from pop-down and pop-up menus. A Wide range of brush and line styles are available in both single and multicolored types. a mass of Squares/Rectangles/Circles/Ovals/Filled/UnFilled are provided as well as connecting, ray, & constained lines. Color controls are very versatile with 'Color Cycling' with up to 512 different pallettes! This make for quite powerfull animation illusions. N-vision also has a color blend feature, just set 2 colors and the program will set your palette with a smooth blend of color between your choices. Pictures can be saved in compressed format to save on disk space and the program can also load DEGAS & NEO piccies too. The disk is supplied with several demo pictues, many fill patterns & brushes and some clip-art. A supplied program merges songs (some included) created with 'Music Studio' and a user written script to present a slide show with music backing! Overall a great program to use (also has a very good manual) capable of assisting some great works of computer art.

## LEADER BOARD (A GOLF SIMULATOR) By Access

Warning: This program causes sleepless nights! It is so addictive that a certain EDITOR and I are often to be found playing round after round late Satuday nites (& early Sunday morns!) .So before you buy it stock up on vitamins!. Anyway this is a golf game for 1 to 4 players, there are 3 levels of difficulty and 4 different courses to play. The graphics are surperb giving a 3-D view taken



from a TV camera behind the player. There are trees, rough, bunkers, and water hazards on the course to hinder the golfer. A full range of clubs are available to use, and there is a wind and ground gauge to help with your selection. I would rate it true ARCADE QUALITY, in fact I compared it to it's arcade twin and the ST vesion was faster! The on screen golfer has a beautifully animated swing, and the sound-FX of club hitting ball, ball falling into cup, etc and even ball splashing into water (oops) are totally realistic. There is also a driving range to practice your fairway shots. One hel'ava good game.

Atari has announced at the German Computer show at Hanover the new 2080ST and the 4160ST at 2 and 4 MEG ram wow! No prices or other details known at this till, but I shall be following it up. Also the Blitter upgrade will be available to ALL ST models and will speed up grahics operations 3-6 times.

Overall the ST are going great , with the English mags brimming with new products. And the U.S. companies are also doing their stuff, with EPYX adding 3 new titles to their exsisting 3 titles (all of which I rate highly) World Games, Champion Wrestling, & Super Cycle. Activision also added two new games , Little Computer People (kind of a computer goldfish bowl!) a C64 program ported and improved greatly, the other game is HACKER II the sequel to the popular HACKER, similar story but totaly new play mechanics, very advanced .

ANTIC have expanded their excellent line of programs with some extension to the CAD-3D system.

Other news closer to home is that from next month (November 86) we will have two Public Domain ST disks, one being assorted programs, the other will be a slide show disk.

I have for sale fluffy mouse covers in white or grey they are complete with ears, eyes and a tail, and very cute looking. \$8 at the meetings or \$10 to post.

By and great ST'ng



# UP IN LIGHTS



by Craig Armsworth

This is the first in a series of tutorials that teach you tricks on how to 'beef' up title screens, with graphics, sound and colour to create the illusion of animation. One problem with great title screens is that the are usually better than the program and take up more memory than the main program. Well here we go.

## Fade in Fade out

You may have seen a few programs, where text appears out of



nowhere and then disappears into obscurity, very effective, very easy, and memory efficient. The trick is have what you want to 'fade in' already on the screen but the same colour as the background and then change its colour slowly so it suddenly appears. The following short program demonstrates.

```

10 GRAPHICS 0:POKE 710,0:POKE 709,0:REG=710
20 LIST
30 FOR X=0 TO 14
40 POKE REG,X
50 FOR D=1 TO 10:NEXT D:NEXT X
60 FOR X=14 TO 0 STEP -1
70 POKE REG,X
80 FOR D=1 TO 10:NEXT D:NEXT X
90 REG=REG-1*(REG=710)+1*(REG=709)
100 FOR D=1 TO 50:NEXT D:GOTO 30

```

If your worried about line 90 all it does is switch the value of the variable REG between 709 and 710.

Well that was simple and effective so just imagine what you can do in GR.10 with nine colours, type in the following listing and be amazed.

Thats all for this month, much much more next month when I have a bit more time.

```

1 REM # UP IN LIGHTS # 180 COLOR 6:X=41:Y=20:L1=120:GOSUB 420 FOR D=1 TO 10:NEXT D:NEXT Y
2 REM # by Craig Armsworth # R 430 FOR Y=14 TO 0 STEP -1:POKE X,Y+A
3 REM # Published by Atari Computer # 190 COLOR 7:X=0:Y=160:L1=10:GOSUB R A:IF X=710 THEN POKE 708,Y+A
4 REM # Enthusiasts (N.S.W.) # :X=3:Y=170:L1=80:GOSUB R:X=10:Y=172:L1 440 FOR D=1 TO 10:NEXT D:NEXT Y:POK
5 REM # OCTOBER 1986 # =70:GOSUB R:X=17:L1=10:GOSUB R E X,0:POKE 708,0
6 REM # # 200 X=24:L1=150:GOSUB R:X=31:L1=120 450 FOR D=1 TO 15:NEXT D:POKE 712,P
7 REM # # :GOSUB R:X=38:L1=0:GOSUB R:X=45:L1=130 EEK(53770):NEXT X:GOTO 400
8 L=10000:R=2000 :GOSUB R:X=52:L1=40:GOSUB R 2000 RESTORE L+L1:READ N:FOR D=1 TO
9 100 GRAPHICS 10:FOR X=704 TO 711:PO 210 X=59:L1=0:GOSUB R:X=66:Y=170:L1 N:READ A,B:PLOT A+X,B+Y:NEXT D:RETURN
10 KE X,0:NEXT X =60:GOSUB R:X=70:Y=160:L1=20:GOSUB R
11 105 POKE 712,PEEK(53770) 220 TRAP 250 10000 DATA 24,0,0,1,0,2,0,3,0,4,0,5
12 110 COLOR 1:X=5:Y=2:L1=0:GOSUB R:X= 230 COLOR 8:X=40:Y=100:RESTORE 1018 ,0,2,1,3,1,2,2,3,2,2,3,3,3,2,4,3,4,2,5
13 . L1=10:GOSUB R:X=19:L1=20:GOSUB R: 0 C+X,D+Y:GOTO 240 ,3,5,2,6,3,6,0,7,1,7,2,7,3,7,4,7,5,7
14 120 X=39:L1=0:GOSUB R:X=46:L1=40:GO 240 READ A,B,C,D:PLOT A+X,B+Y:DRAW 10010 DATA 21,1,0,2,0,3,0,4,0,5,0,0
15 SUB R 250 COLOR 1:PLOT X,Y-3:DRAWTO X,Y-2 ,1,5,1,0,2,0,3,1,3,2,3,3,4,4,4,5,4,5,5
16 130 COLOR 2:X=1:Y=24:L1=50:GOSUB R: 6:PLOT X+1,Y-1:DRAWTO X+3,Y-3 ,0,6,5,6,1,7,2,7,3,7,4,7
17 Y=34:L1=70:GOSUB R:Y=44:L1=60:GOSUB R: 260 COLOR 2:PLOT X+2,Y-1:DRAWTO X+7 10020 DATA 24,0,0,1,0,5,0,0,1,1,1,5
18 Y=54:L1=80:GOSUB R:Y=64:L1=40:GOSUB R ,Y-3:PLOT X+2,Y:DRAWTO X+3,Y ,1,0,2,2,2,5,2,0,3,2,3,5,3,0,4,3,4,5,4
19 140 COLOR 3:X=26:Y=160:L1=40:GOSUB 270 COLOR 3:PLOT X+1,Y+1:DRAWTO X+6 0,5,3,5,5,5,0,6,4,6,5,6,0,7,4,7,5,7
20 R:X=33:L1=0:GOSUB R:X=40:L1=90:GOSUB R ,Y+6:PLOT X-1,Y+1:DRAWTO X-3,Y+3 10030 DATA 6,0,0,1,0,0,1,1,1,1,2,0,
21 :X=48:L1=100:GOSUB R 280 COLOR 4:PLOT X+1,Y-2:DRAWTO X+5 3
22 150 COLOR 4:X=20:Y=50:L1=110:GOSUB ,Y-12:PLOT X-2,Y+1:DRAWTO X-4,Y+2 10040 DATA 20,0,0,1,0,2,0,3,0,4,0,5
23 R:X=27:Y=40:L1=60:GOSUB R:X=34:Y=30:L1 290 COLOR 5:PLOT X+1,Y+4:DRAWTO X+3 ,0,2,1,3,1,2,2,3,2,2,3,3,3,2,4,3,4,2,5
24 =80:GOSUB R ,Y+20:PLOT X-1,Y-2:DRAWTO X-3,Y-1 ,3,5,2,6,3,6,2,7,3,7
25 160 COLOR 5:X=60:Y=5:L1=120:GOSUB R 310 COLOR 7:PLOT X-2,Y:DRAWTO X-7,Y 10050 DATA 24,2,0,3,0,1,1,2,1,3,1,4
26 :X=64:Y=15:L1=100:GOSUB R:X=68:Y=25:L1 :PLOT X-1,Y-3:DRAWTO X-2,Y-5 ,1,0,2,1,2,4,2,5,2,0,3,5,3,0,4,1,4,2,4
27 =20:GOSUB R:X=64:Y=35:L1=100:GOSUB R 400 FOR X=705 TO 711:A=INT(RND(0)*1 3,4,4,4,5,4,0,5,5,5,0,6,5,6,0,7,5,7
28 170 X=60:Y=45:L1=170:GOSUB R:X=64:Y 6)*16 10060 DATA 24,1,0,2,0,3,0,4,0,0,1,1 ,1,4,1,5,1,0,2,5,2,0,3,5,3,0,4,5,4,0,5
29 =55:L1=100:GOSUB R:X=68:Y=65:L1=140:GO 410 FOR Y=0 TO 14:POKE X,Y+A:IF X=7 ,5,5,0,6,1,6,4,6,5,6,1,7,2,7,3,7,4,7
30 SUB R 10 THEN POKE 708,Y+A 10070 DATA 30,0,0,1,0,2,0,3,0,4,0,0

```



,1,4,1,5,1,0,2,4,2,5,2,0,3,1,3,2,3,3,3 ,2,1,3,4,3,2,4,3,4,2,5,3,5,2,6,3,6,2,7 ,1,6,2,6,4,6,5,6,1,7,2,7,4,7,5,7  
,4,3,0,4,4,4,5,4,0,5,4,5,5,5,0,6,4,6,5 ,3,7 **EP** 10100 DATA -1,-27,1,-27,-2,-26,-1,-  
,6 **EE** 10120 DATA 24,0,0,1,0,2,0,3,0,4,0,0 26,1,-26,2,-26,-3,-25,-2,-25,2,-25,3,-  
**ES** 10071 DATA 0,7,1,7,2,7,3,7,4,7 ,1,4,1,5,1,0,2,4,2,5,2,0,3,1,3,2,3,3,3 25,-3,-25,-3,-21,3,-25,3,-21,-4,-21  
**ED** 10080 DATA 20,0,0,5,0,0,1,5,1,0,2,5 ,4,3,0,4,4,4,0,5,4,5,0,6,5,6,0,7,5,7 **EK** 10190 DATA -4,-17,4,-21,4,-17,-5,-1  
,2,0,3,5,3,0,4,5,4,0,5,5,5,0,6,1,6,4,6 **EL** 10130 DATA 20,0,0,1,0,2,0,3,0,4,0,0 7,-5,-13,5,-17,5,-13,-6,-13,-6,-9,6,-1  
,5,6,1,7,2,7,3,7,4,7 ,1,4,1,5,1,0,2,4,2,5,2,0,3,1,3,2,3,3,3 3,6,-9,-7,-9,-7,-5,7,-9,7,-5,-8,-5,-8,  
**EM** 10090 DATA 26,0,0,1,0,5,0,6,0,0,1,1 ,4,3,0,4,0,5,0,6,0,7 5  
,1,5,1,6,1,0,2,2,2,4,2,6,2,0,3,2,3,4,3 **EU** 10140 DATA 24,0,0,1,0,2,0,3,0,4,0,0 **EV** 10200 DATA 0,-5,8,5,-7,5,-7,9,7,5,7  
,6,3,0,4,3,4,6,4,0,5,3,5,6,5,0,6,6,6,0 ,1,4,1,5,1,0,2,5,2,0,3,5,3,0,4,5,4,0,5 ,9,-6,9,-6,24,6,9,6,24,-5,13,-5,24,5,1  
,7 3,5,24,-4,17,-4,24,4,17,4,24,-3,21,-3,  
**EW** 10091 DATA 6,7 **EX** 10150 DATA 20,1,0,2,0,3,0,4,0,5,0,0 24  
**EX** 10100 DATA 21,0,0,1,0,2,0,3,0,4,0,5 ,1,1,1,5,1,0,2,0,3,0,4,0,5,0,6,1,6,4,6 **EY** 10210 DATA 3,21,3,24,-10,30,10,30,-  
,0,0,1,0,2,0,3,1,3,2,3,3,3,0,4,0,5,0,6 ,5,6,1,7,2,7,3,7,4,7 9,29,9,29,-9,28,9,28,-7,27,7,27  
,0,7,1,7,2,7,3,7,4,7,5,7 **EZ** 10170 DATA 23,0,0,6,0,0,1,6,1,0,2,6 **EA** 10220 DATA -7,26,-1,26,1,26,7,26,-7  
**EA** 10110 DATA 16,0,0,5,0,0,1,5,1,1,2,4 ,2,0,3,3,3,6,3,1,4,3,4,5,4,1,5,3,5,5,5 ,25,-2,25,2,25,7,25,-1,0,1,0,0,-1,0,1



# BOOK REVIEW

MAPPING THE ATARI  
by Lance Munday, South Penrith

Yes, you've seen them in programs and heard talk about them, but if it's all hocus-pocus to you then get this book.

Mapping the ATARI is in easy to understand English and the memory map is laid out sequentially from location 1 to 65528 with a description of what each location does.

When reading through a program keep this book at hand and when you come upon a Poke or Peek refer to it in Mapping the ATARI and you will understand it's use in the program.

This book also looks at the CTIA/GTIA, POKEY, PIA and ANTIC chips and gives a good overview of each, and in the appendices it covers VBLANK, Graphic Memory Map, Timing Values, A and B ROMS, Color, Sound, PM Graphics, Display List, Numerical Conversions and ATASCII and Internal Character Code Values and if this isn't enough there is an Index by Label as well as an Index by Subject.

This book published by Compute! Books provides a comprehensive listing and description of memory locations and will aid you in programming your ATARI computer.



# NEWS FROM THE UNITED KINGDOM



by Ian Murray

At long last I have found enough time to set pen to paper to let you all share in the knowledge of how ATARI is fairing on the other side the world. While we hear and see quite a lot about Atari in the USA through ANTIC, ANALOG, COMPUTE, BYTE and other USER GROUP's magazines, we do not hear a great deal from the UK. Those of us fortunate enough to read PAGE 6 magazine do see some of the picture, but not all. What follows is your humble correspondents experience.

Most of my time was spent in Scotland, so the majority of what I write will pertain to Edinburgh, though some of my tale refers to London as well. Edinburgh is a city of approximately half a million people, and is served by three computer shops which sell ATARI computers. This is augmented by a couple of chain stores and electrical retailers which sell XE computers only. The main competition seemed to be the Amstrad. The Amstrad was sold at more outlets, but mainly chain stores, rather than computer shops.

Guess what? I only saw one Commodore for sale anywhere in London or Edinburgh. The Guardian newspaper of May 22nd stated that Commodore had closed its UK factory at Corby. Apple was nowhere to be seen in any of the dozen or so computer shops which I visited, so as you may surmise, the ST finds itself virtually alone in the marketplace. Many small businesses seem to have taken the Atari as the answer to their computer problems.

This brings me to the ST itself. There are four models available in the UK market, and since most of the machines are imported from West Germany, I would assume that this would hold true for most of Europe. The 520 and 1040 ST have two separate configurations, namely the models ST-F and ST-M. The differences being that the disk drive is inbuilt on the ST-F and external on the ST-M. The prices are the same for both models and equates to approximately A\$1400.00. The XL range on the other hand are quite differently priced to those here in Oz. During the early part of 1986 the recommended retail price for an 800 XL and 1050 drive was about A\$250.00. Yes that did include both items. Those prices did increase just before I arrived, wouldn't you know it, trust my luck. I did manage to pick up a 1050 drive at the new prices though, which meant an outlaw of just over A\$200.00 (Mobex please take note).

Software shops were in abundance, and seemed to be thriving. They supported Atari, Commodore, BBC and Amstrad on the average. What a surprise I got upon entering one establishment in London where about 95% of the software on offer was Atari specific. The price of software was quite surprising also, with all prices much cheaper than here in Australia. The majority of programs were tape based and ranged in price from about A\$2.00 to A\$30.00. Even the American disk based programs were much cheaper, with that same London shop selling all USA game software which was over 2-3 years old for A\$2.00. Unfortunately I had most of the good stuff already, so I saved the trouble of having to buy another bag.

Other items on my shopping list were a video digitizer, and hi-res graphics board which will allow a resolution of 1024x600 with 256 colours on the older 400/800 systems. Time and effort are the



only things which have prevented the completion of these kits. I hope to be able to show them at meetings sometime in the future as they are built.

Another item of interest for ST owners was an article in the Guardian about CP/M software. Apparently Atari are supplying a CP/M disk with each new system sold, but that the documentation supplied was not of a very good standard. The article went on to say that Mike Wilding, an ex-Atari employee is supplying a 'cleaned-up' version which includes the CP/M disk, documentation and a utilities disk for about A\$15.00. For anyone who is interested, here is the address and phone number:

Mikes Computer Store  
292 London Road,  
Westcliffe-On-Sea,  
Ph: (0702) 33 2554 or ISD 0011 44 702 33 2554

Whilst in Edinburgh, I managed to find out a little about the local user groups. There appear to be two such groups in Edinburgh, each with about 50 members. The Scots, like the civilised nation they are, hold their meetings in a pub. Do I hear anyone second the motion? I have managed to establish contact with one of these clubs, and they have expressed interest in exchanging ideas and news. As any of this comes to hand, I shall relay items of interest to all of you via Inside Info. If anyone would like to speak to me about anything in this article, or have other questions, I will be happy to talk to you.



# REVIEW. ADVENTURE MASTER

C.B.S. Software  
by Steve Bradbury

The blurb at the beginning of the Program Guide included with the two disk package states: "ADVENTURE MASTER puts you in total control."

After many months experimenting with the product, I have come to the conclusion that the only thing in 'total control' is the program itself. ADVENTURE MASTER has left me in no doubt as to who is the master. It certainly was not me!

After much head scratching, trying to unravel the mysteries of the Guide, (an adventure in itself!) I finally embarked on my first text adventure. INFOCOM watch out I said to myself as I rattled off the purple prose. The skeleton plot developed at a cracking pace. Items and puzzles were liberally scattered amongst rooms, caves, and other exotic locations. Finally after extensive game testing I was ready to add the final flourish, a natty graphics title screen and a smattering of other screens throughout the game. Although very

limited (three colours), the graphics option proved quite flexible.

Finally the time arrived to transfer the program logic to my collection of rooms, items, and usable words. A flick of the drive, and out popped the greatest breakthrough in adventure gaming since ZORK I! Only one problem. The bugger would not load. I am only guessing, but I think the combined shock of trying to fit the program logic and the graphics on a disk with finite space was too much for the program's dear little heart. I had created Frankenstein's monster!

Although partly accessible through the ADVENTURE MASTER disk for viewing rooms and permitted directions, etc., the new disk went immediately on strike when booted and refused to acknowledge any command. I abandoned the project in disgust.

#### POST SCRIPT

Months later I decided to give the product a second chance. Keeping a very close eye on available memory and staying clear of graphics, I churned out a salty tale called "Pirates Booty". The programs bad habits did return to some extent when adding words to the games vocabulary. After accepting about 50 words it started to get a bit iffy, and would not understand some words during game play.

Documentation for ADVENTURE MASTER brags that the program can cope with 50 rooms, 10 illustrations, and 50 to 100 words and phrases. In reality the game seems to spit out the dummy after 45 rooms, no illustrations, and about 50 words.

If anyone manages to get a copy of 'Pirates Booty' and is stumped due to the limited vocabulary, they are welcomed to get in touch with the author (me). Just send a stamped, self-addressed envelope and I shall send you a list of 'VISICLUES' and a map designed in the true INFOCOM tradition.  
(A copy of PIRATES BOOTY hopefully will be available from the software exchange in the near future. Ed.)



## BOOK REVIEW

by K. Harris

RANDOM ALLEY ADVENTURE

A Creative Pastimes Book - Reston Publishing Company, Inc

'Random Alley Adventure' is the story of Harold, a teenage boy who finds himself in a world where events are governed by chance. But that is not the main purpose of the book. The book states in its opening sentence "Random Alley Adventure is for anyone interested in the laws of chance." and introduces the reader to the RANDOM function of Atari Basic as we follow Harold's adventures.



Each chapter is divided into written narrative of each episode of Harold's adventures, complemented by program listings displaying how Harold (and the Atari computer) demonstrate the simulation of random events.

The programs and story are a simple introduction to the beginner programmer or child who has advanced from playing computer games to enquiring how they are programmed. The book commences the reader with simulating the tossing of a coin and advances the reader in stages through the story, while introducing other Basic functions which build and enhance a program such as SOUND, COLOR, etc., to responses to random answers, the basis of adventuring programming.

The storyline should find to be interesting to a child (my niece enjoyed it) as well as an introduction to programming and problem solving of random events.



# ST BOOK REVIEW

COMPUTE!'s ST  
Programmer's Guide  
US price \$16.95, 356 pages, ring-bound.

In the past, Compute! has had its finger on the pulse and produced two of the four major reference books for the Atari, both very "needed" books on the Atari 8 bit machines, "Mapping the Atari" (is perhaps the Bible) with "Inside Atari DOS". The quartet becomes complete with the black book by Poole/Mcniff & Cook "Your Atari Computer" and "Atari Basic faster and better" by Evans.

The ST's introduction heralded a new generation of atari, the 68000 and new languages to learn. However both the LOGO and BASIC manuals supplied with the ST could better have been supplied on a disk for the user to print out, for the quality would have been comparable and the paper quality better. What few illustrations could have been supplied on a simple A4 page, or as picture files.

What was needed was a good quality reference book that will survive the ravages of time, the frustrations of users, and explain the contents of both Manuals in English. Compute! has done this well, and have saved the day. The "ST Programmer's Guide" is a reference manual that covers "STBASIC", "ST-LOGO" and most important "GEM", not covered by either "Sourcebook".

I found the guide incredibly helpful as it cleared out a few mysteries about the ST and explains it all with only a small amount of Jargon; jargon that is easy to pick up and understand without being vague or being given the feeling one is somewhere-else in the universe.

My first ST Basic Program bombed and I could not see a reason

why I got an error code 2. STBASIC and the "source book", gives the definition of the error code as "SOMETHING IS WRONG". I thought that a bit fatuous, almost naive, for it tells me nothing. In comparison, The ST Programmer's Guide relates this to a "Syntax Error" where there could be a problem caused by punctuation or the variable name. The error code definitions are very helpful in the Guide.

The Guide is also written for the novice, and takes one through a quick course in the fundamentals of programming and applications. This is really important if you have been an 8-bit programmer for a while. There are lots of great tricks that just will not work in 16 bit, and heaps of new and exciting ones to discover. The guide gives lots of subtle hints.

The bottom line. The guidelines set out on the back cover of the programmer's guide are met and I believe the approach is great. For me it is worth it even though it may cost around the \$35 mark here.

Point scoring: out of 10, well, thats is difficult. I still consider myself a novice to the ST after 9 months of intensive exploration. My score is an 8 only because I have become addicted to structured programming and so I was not wrapped with linear programming examples. Perhaps with time my opinion may change or mellow as I seek bigger and better reference manuals. Whether it becomes as famous and noted as the 8 bit books, time will tell.

Larry O'Keeffe

## CLASSIFIEDS

### FOR SALE

#### Software

Cartridges (each)  
\$20.00 - Wizard of War, Computer War.

Diskettes (each)  
\$50.00 - Synfile.  
\$30.00 - Pinball Construction Set, Movie Maker.

Word Processors (each)  
\$50.00 - Paperclip, Atariwriter.

Contact;  
John Latham  
7 Lucas Street,  
BUNDABERG 4670  
Ph. (071) 71-3633

\*\*\*\*\*

Diskettes (each)  
\$25.00 - Datestones of Ryn.  
\$10.00 - Car Costs.

Cassettes (each)

- \$30.00 - Atari Mailing List.
- \$25.00 - QS Assembler, Nukewar, B-1 Nuclear Bomber, Galaxy.
- \$12.00 - Space Chase.
- \$10.00 - Crypts of Plumbous.

Contact;

Ian Murray  
Ph. Home (02) 662-4110  
Ph. Work (02) 234-1406

\*\*\*\*\*

Diskettes (each)

ADVENTURES

- \$30.00 - Enchanter, Infidel.
- \$25.00 - Transylvannia.
- \$20.00 - Stonequest.
- \$15.00 - Adventure International Tri-pack: Curse of Crowley Manor,  
Escape from Traam, Earthquake San Francisco.
- \$10.00 - Blade of Blackpoole.

ARCADE

- \$30.00 - Spy vs Spy.
- \$10.00 - Pole Position, Mouseattack, Shamus, Bandits.

WAR

- \$10.00 - Paris in Danger.

Cassettes (each)

ARCADE

- \$10.00 - Pole Position, Zaxxon.
- \$ 5.00 - Apple Panic.

WAR

- \$10.00 - Tigers in the Snow.

All originals with documentation. Prices Negotiable, will consider swap.

Contact;

Dean Rapp  
10/206 Oberon St  
COOGEE 2034  
Ph. Home (02) 665-2324  
Ph. Work (02) 218-6655

\*\*\*\*\*

Cartridges (each)

- \$10.00 - Pole Position.

Diskettes (each)

- \$30.00 - Ultima II, Enchanter, Hitchhikers Guide to the Galaxy,  
Infidel.
- \$20.00 - Zork I, Zork II, Zork III.
- \$10.00 - Conflict 2500.

Books (each)

- \$ 5.00 - Atari Adventures, Atari Basic Programs in Minutes, Dr.  
Wacko's Miracle Guide to Designing and Programming Your Own  
Atari Computer Arcade Game, The Atari Book of Games, Atari  
Stimulating Simulations, Atari Basic.

All with original documentation.

Contact;



Steve Bradbury  
Ph. Home (049) 26-4566  
Ph. Work (049) 75-3183

\*\*\*\*\*

DESPERATELY SEEKING

Antic Magazines - Issues Feb & March 1986. Willing to pay shop prices.

Contact;  
Steve Bradbury  
Ph. Home (049) 26-4566  
Ph. Work (049) 75-3183

\*\*\*\*\*



**\*\*\*\*\* ATARI COMPUTER ENTHUSIASTS (NEW SOUTH WALES) \*\*\*\*\***  
**INFORMATION 1986**

Atari Computer Enthusiasts (N.S.W.) is an independent, non-profit users' group for owners of ATARI Computers and is loosely affiliated with Atari Computer Enthusiasts in the U.S.A.. While we are recognised by Mobex Pty Ltd, as the official Atari Users' Group in N.S.W. we have no connections with them or the Atari Corporation. Membership fees are currently \$20.00 for the first year and \$15.00 (Renewal) thereafter. Membership includes a 6 issue subscription to INSIDE INFO and a further fee of \$10.00 allows lifetime access to the group's Bulletin Board service. Unless noted as being copyright, permission is given to reprint articles from INSIDE INFO, making acknowledgement to the source and sending a copy of the publication the article appears in, to the editor. Opinions expressed are those of the author and do not necessarily represent the views of A.C.E.(N.S.W.). Advertising rates in INSIDE INFO are \$50.00 full page, \$30.00 half page and \$20.00 quarter page. Members' personal advertisements are free.

<u>COMMITTEE MEMBERS</u>	<u>HOME PHONE NO.</u>	<u>COMMITTEE MEMBERS</u>	<u>HOME PHONE NO.</u>
Colin Grace (President)	(02) 337-2697	Larry O'Keefe (Vice President/Sysop)	(02) 529-8249
Peter Dickeson (Secretary/Treasurer)	(02) 808-3429	Ian Murray (Meetings Organiser)	(02) 662-4110
Craig Arnsworth (Editor)	(02) 918-3814	Jeff Maddock (Assistant Sysop)	(02) 568-2990
Brian Elliot (Librarian)	(02) 451-2835	Philip Hayne (Software Exchange)	(02) 918-2360

PAYMENTS, CORRESPONDENCE AND NEWSLETTER EXCHANGE

All payments may be made at any meeting or by mail. All cheques and Money Orders should be made payable to Atari Computer Enthusiasts (N.S.W.). All correspondence and Newsletter Exchange should be forwarded to:-

**A.C.E. (N.S.W.) GPO BOX 4514, SYDNEY N.S.W. 2001**

BULLETIN BOARD - Phone (02) 529-2059 & CSACE BBS (02) 529-8249

Operating hours - 6PM to 9AM Monday to Friday. Full 24 hours on both Saturday and Sunday.

Sysop: Larry O'Keefe. Access requires \$10.00 lifetime access fee and password from Sysop. 'MODEM' terminal software or derivatives is recommended. PUBLIC DOMAIN SOFTWARE ONLY!!

MEMBERS' DISCOUNTS

COMPUTER-1 (5% Discount):- 200 Alison Road, Randwick.	Phone:- (02) 399-1
HOTLINE BOOKS AND SOFTWARE (10% Discount):- 693 George Street, Haymarket, Sydney.	Phone:- (02) 212-6077
COMPUTERWAVE (5% Discount - Cash Only):- 325 George Street, Sydney.	Phone:- (02) 29-1631
THE COMPUTER SPOT (5% Credit, 10% Cash):- Shop C4, MLC Centre, Martin Place.	Phone:- (02) 235-2971
COVER CARE (25% off computer dust covers):- P.O.Box 719, Chatswood, N.S.W. 2067.	Phone:- (02) 498-5631
ERGONOMIC DESIGNS LTD. (10% off computer desks):- 414 Stirling Highway, Cottesloe, WA 6011.	Phone:- (09) 384-8499

SOFTWARE EXCHANGE

A full range of public domain software is available from the Software Exchange for \$6.00 per disk. A list of Software Exchange disks begins from INSIDE INFO No.26 and updates continue in subsequent issues.

ARTICLE/PROGRAM SUBMISSION

Articles for INSIDE INFO should reach the Editor as early as possible, and at least 2 weeks ahead of the release date. Disk submissions should use single density DOS 2 format. Modem submissions leave message on the board for the EDITOR. Submissions will entitle you to one Software Exchange disk free of charge.

MEETING DETAILS

Meetings are held at 6PM on the 2nd floor of the Y.W.C.A building, corner of Wentworth Avenue and Liverpool Street, Darlinghurst 2010.

UPCOMING MEETINGS:- **MONDAY OCTOBER 13**  
**MONDAY NOVEMBER 10. AGM**  
**MONDAY DECEMBER 8. XMAS PARTY**

RENEWAL DATE

**Atari Computer Enthusiasts (N.S.W.)**  
**MEMBERSHIP FORM**

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TOWN/SUBURB: \_\_\_\_\_

STATE: \_\_\_\_\_ POSTCODE: \_\_\_\_\_

PHONES- home (     )     -     work (     )     -

SIGNATURE: \_\_\_\_\_ AGE: \_\_\_\_\_ DATE: \_\_\_\_/\_\_\_\_/\_\_\_\_

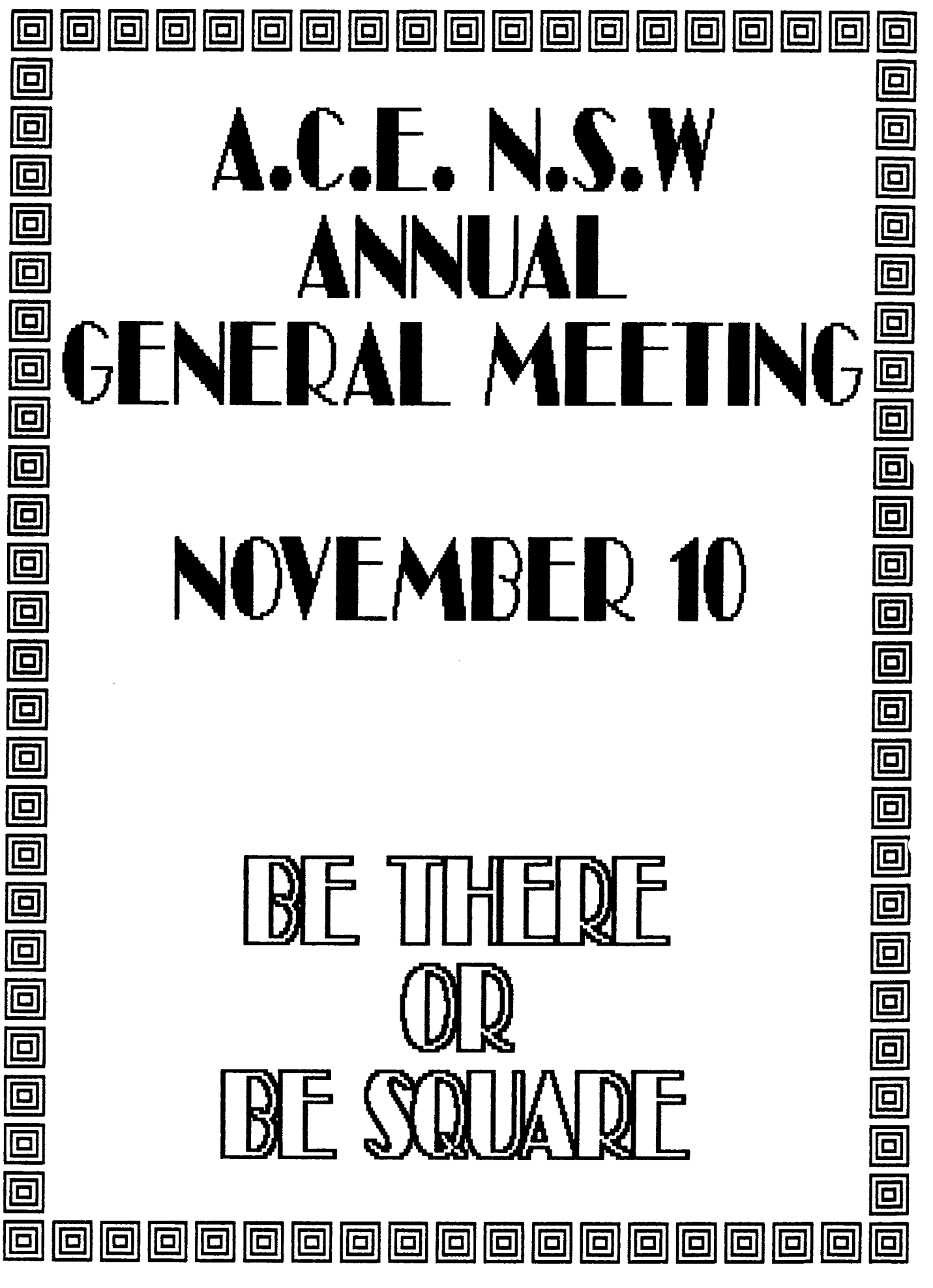
Enclosed is Cash Cheque Money Order for:-

\$20 joining membership \$15 membership renewal Notice of change of address

**OFFICE USE ONLY:**

Date Processed: \_\_\_\_/\_\_\_\_/\_\_\_\_ Receipt #: \_\_\_\_\_ LAST ISSUE: \_\_\_\_\_





**A.C.E. N.S.W  
ANNUAL  
GENERAL MEETING**

**NOVEMBER 10**

**BE THERE  
OR  
BE SQUARE**